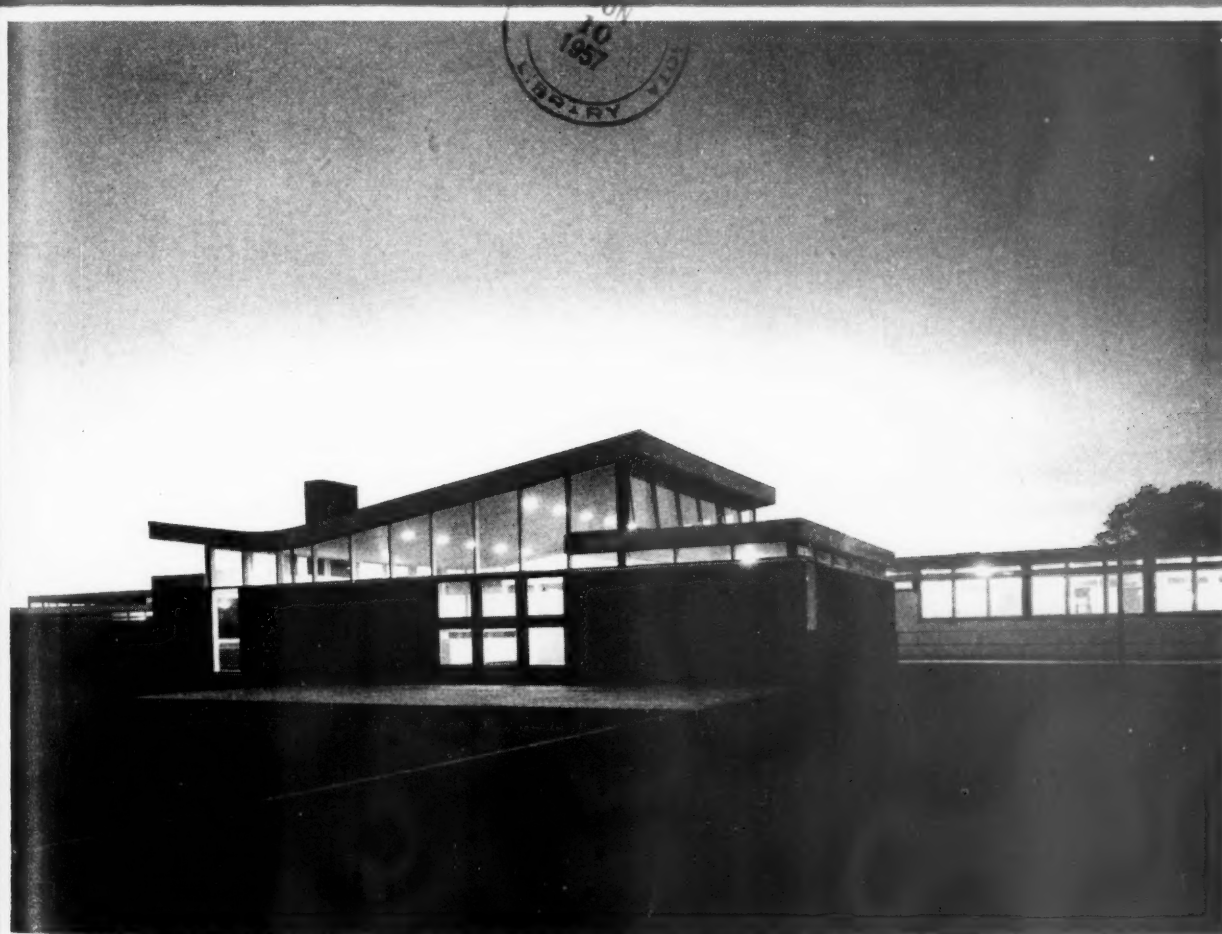


THIRD SERIES VOL 64 NUMBER 7

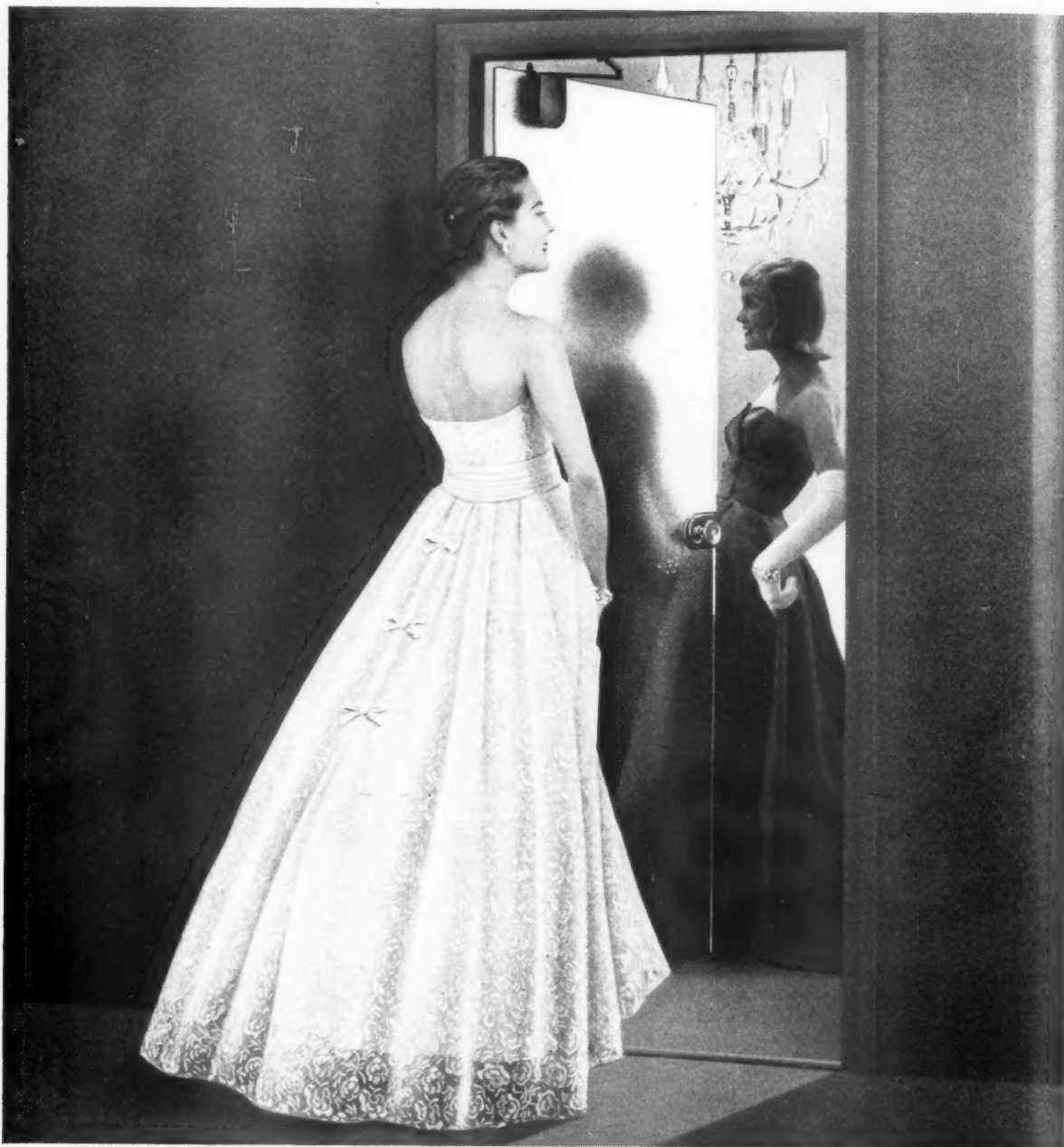
MAY 1957

THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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THIRD SERIES VOL. 64 NUMBER 7 TWO SHILLINGS AND SIXPENCE

EDITORIAL

Memorial Service for Sir Patrick Abercrombie

The Memorial Service for Sir Patrick Abercrombie was held at St. Martin-in-the-Fields on 29 April. A large and distinguished congregation were present. The Rev. Austen Williams officiated, Sir Herbert Griffin, Secretary of the Council for the Preservation of Rural England, of which Sir Patrick was Chairman, read the lesson and Mr. Clough Williams-Ellis [F] gave an address. The Royal Institute was represented by Mr. C. H. Aslin, C.B.E., Past President, and the Secretary-General of the I.U.A. by Mr. W. R. F. Ellis, Deputy Secretary, R.I.B.A. An appreciation of Sir Patrick Abercrombie by Mr. J. H. Forshaw, C.B. [F], appears on page 293.

The Visit of Professor Aalto

During an eventful week in which he received the Royal Gold Medal for Architecture and delivered the first Annual Discourse at the Royal Institute, Professor Alvar Aalto was Guest of Honour at a Dinner of the Architecture Club held at the Criterion on 10 April to mark the occasion of his receiving the Royal Gold Medal. Viscount Esher presided. Professor Aalto also attended the Building Centre Annual Lunch at Claridges on 11 April which was followed by a reception at the Finnish Embassy. On the same evening he and Madame Aalto attended the Annual Reception of the Architectural Association. Professor Aalto was interviewed by the B.B.C. and the subsequent broadcasts gave many people who were unable to attend the Discourse an opportunity of hearing him.

An audience of about 700 crowded into the Henry Jarvis Hall to hear Professor Aalto deliver the first Annual Discourse. His humane and memorable talk, followed by modest yet illuminating comments on slides of his work, made a deep impression on those who heard it.

The report is printed as nearly as possible as Professor Aalto gave it.

What's the Form?

Members will have received, or will shortly be receiving, a letter from Professor Leslie Martin, Vice-President, together with a questionnaire form.

Sir Howard Robertson has something to say about this form in an article on page 253.

Seventh Australian Architectural Convention

At the Council meeting of the Royal Australian Institute of Architects held on Wednesday 3 April 1957, Mr. Kenneth Cross, President, R.I.B.A., was elected a Life Fellow of the Royal Australian Institute and Mr. C. D. Spragg, Secretary, R.I.B.A., was elected their first Honorary Associate. Both were presented with Diplomas of Membership.

A.I.A. Centennial Celebration

Mr. Kenneth Cross, President, R.I.B.A., and Mr. C. D. Spragg, Secretary, at the time of going to press, were due to attend the Convention of the American Institute of Architects in Washington, 13-17 May. In the programme of lectures and discussions, President Eisenhower, who is being presented with the Centennial Commemorative Medal in gold, was down to deliver the concluding address. During the Convention, a photographic exhibition 'A New Century of Architecture' was mounted at the National Gallery of Art in Washington.

Yorkshire Building Trades and Public Works Exhibition

The West Yorkshire Society of Architects are taking a stand at the Yorkshire Building Trades and Public Works Exhibition which is open from 21 May-1 June at Woodhouse Moor, Leeds. The exhibition, which is being run in conjunction with the YORKSHIRE POST, is the largest exhibition to be held for many years and the first in this area to be devoted to the work of the building trades.

The West Yorkshire Society of Architects' stand, designed by members of the Society, is in a prominent position and will be 'manned' throughout the period by members of the West Yorkshire Society. Members are undertaking this job on a shift basis of 2½ hours each between 11 a.m. and 9 p.m. so that enquirers can be sure of obtaining help and advice whenever they call at the stand.

The R.I.B.A. Public Relations Committee have been giving active support to the West Yorkshire Society, both in connection with the stand itself and with the publicity and information service to be run in connection with it.

The West Yorkshire Society are to be congratulated on their enterprise in undertaking such a venture and the Royal Institute hopes it will meet with much success.

British Architects' Conference

It is regretted that in the Conference Programme it was not mentioned that the guide for Tour No. 1 (whole-day tour to the Cotswolds) will be Mr. Thomas Rayson, F.S.A. [F], Chairman of the Oxfordshire Society of Architects.

President of the A.A. 1957-58

Mr. John Brandon-Jones, A.A. Diploma, [A], has been elected President of the Architectural Association for the year 1957-58.

He was born in 1908 and was educated at St. Georges, Harpenden, and Bembridge School. He became a pupil of Oswald P. Milne [F], in 1926 and went on to the A.A. School in 1928. He became Assistant to C. Cowles-Voysey [F], 1933, and was appointed Lecturer in Architecture, Liverpool University, in 1937. He continued practice independently and in association with C. Cowles-Voysey until the outbreak of war. He served in the Department of the Civil Engineer in Chief, Admiralty, 1939, being in charge of Civil Engineers Drawing Office, Lynes (Scapa Flow), and Admiralty Works Liaison Officer for Shetland Isles. Mr. Brandon-Jones was released by the Admiralty on appointment as a Senior Master at the A.A. School 1945.

He resumed practice in partnership with C. Cowles-Voysey, 1949, and on the retirement of Mr. Voysey, in 1955, entered into partnership with Robert Ashton [A] and John D. Broadbent [A].

As Senior Assistant to Mr. Voysey, he was engaged on the designs for the Guildhall, Cambridge, and Town Halls at Worthing, Watford and Bromley, and in partnership, on Festival House, Hull (shops and offices).

Works now in hand include the re-building of Morley College, London, New Civic Offices and Assembly Halls for Brentwood and Uxbridge, and County Offices for Hampshire at Winchester.

Mr. Brandon-Jones is a well-known writer and lecturer on aspects of 19th-century architecture; a member of the William Morris Society; Brother and sometime member of the committee of the Art Workers Guild.

He has served on the Junior Members Committee, the Library Committee, and the Board of Architectural Education of the R.I.B.A., and as A.A. Representative on the Council and various committees of the A.R.C.U.K. He was elected to the A.A. Council 1951, became Hon. Sec. 1954, and Vice-President 1955 and 1956.

His hobbies are architectural education, sailing and toy-making. He lives in a house designed by Philip Webb.



Council Matters

At their meeting on 9 April the Council considered a formal application for admission as an Allied Society from the Ghana Society of Architects.

The Council welcomed the Ghana Society and willingly gave their approval to alliance under the provisions of By-law 69. It was a point of especial satisfaction that the Society had become firmly established and could join the ranks of the Allied Societies at the same time as the new independent Commonwealth country of Ghana was celebrating its foundation.

The Society consists of some 60 members, practically all of whom are members of the R.I.B.A. The President is Mr. G. S. Knight [A], and the Honorary Secretary is Mr. Kenneth C. Twist [A], P.O. Box 2535, Accra, Ghana, from whom any further information can be obtained by those considering joining the Society.

Next, a report on the subject of training in the Building Industry was submitted by the Pilot Committee:

The report stated that a further meeting of the Committee took place on 13 March at the offices of the Royal Institution of Chartered Surveyors.

The R.I.B.A. were represented by Mr. David Waterhouse [A], Mr. John C. Stillman [A], and Mr. Norman P. Astins [A]. The delegates to the meeting were welcomed by Sir Alexander Killick, Secretary, R.I.C.S., who offered the fullest co-operation of the R.I.C.S. in the work of the Committee.

Mr. Waterhouse was elected Chairman of the Committee and Mr. Greaves, of the R.I.C.S., Honorary Secretary.

The terms of reference of the Committee were as follows: (a) To establish liaison at a junior level between the three bodies. (b) To proceed informally to further the holding of joint meetings on the basis of invitations, commencing in the London area.

The existing procedures of the three bodies were considered with special reference to subjects, size and frequency of meetings. It was felt that notification of members of each of the three bodies did not present an insurmountable problem although this might be more difficult in the case of the R.I.B.A.

The Committee considered that there might well be a demand for two types of joint meetings: (a) the discussion groups type of perhaps 50 to 60 members in all: and (b) the larger meeting of about 200.

It was also considered that the purpose of the meetings should be to attract the younger qualified men from each part of the professions and the industry, and not the students.

It was therefore decided: (a) To proceed on the basis of meetings already organised by one or other of the constituent bodies. (b) To expand the joint discussion to be held between junior members of the I.O.B. and the R.I.C.S. on 11 April next to include, if possible, about 20 architects. (c) To proceed on the basis that there should be held by about Christmas 1957, through the issue of appropriate invitations, two of the smaller "group" type meetings and one larger joint meeting.

The congratulations of the Council were conveyed to Mr. Thomas Beveridge [F] (Glasgow) on his election as an Associate of the Royal Scottish Academy.



The R.I.B.A. stand at the Factory Equipment Exhibition, Earls Court, 29 April-4 May. The designer was Kenneth Bayes [F]

The Council then gave approval to the President giving his support to a letter of appeal in connection with the Trust established under the name of The Yerbury Foundation to help the Architectural Association to take advantage of all opportunities to widen the scope of its educational work to the benefit of the building industry as a whole, as well as to architecture in particular.

Approval was also given to the R.I.B.A. giving official support to an exhibition of French modern and reconstructed churches in London to be held by the Institut Français.

The next item on the Agenda came under the heading of the Inspection of Churches Measure, 1955. The Council approved a suggestion of the Practice Committee that the possibility should be explored of reaching an agreement with the Central Council for the Care of Churches as to a national scale of fees for surveys and inspections of churches.

Hampstead Garden Suburb celebrates its Jubilee this year. The Council considered and approved a request for the loan of the bust of Sir Edwin Lutyens and the portrait of Sir Raymond Unwin, in the possession of the R.I.B.A., for display in an historical exhibition to be held from 29 June to 6 July during the celebrations of the 50th anniversary of the founding of Hampstead Garden Suburb.

It was agreed to offer on loan to the exhibition not more than twelve of the original drawings of Hampstead Garden Suburb, St. Jude's Church and the Harmsworth Memorial Chapel, from the Lutyens Collection in the Library.

It was also agreed that the R.I.B.A. should support the celebrations, and it was left to the Public Relations Committee to consider in what way this might best be done.

Professor J. Leslie Martin, Vice-President, was in the Chair.

American Office Practice

There is an additional lecture to the programme for the current session. On 4 June that distinguished New Yorker, Mr. Ely Jacques Kahn will give a paper on American Office

Practice. Mr. Kahn's experience of building in New York goes back a long way and the present firm of Kahn and Jacobs, formed in 1941, is famous for its remarkably efficient organisation. In addition to such skyscrapers as the Squibb Building on Fifth Avenue and Nos. 2, 100, 425 and 445 on Park Avenue, Mr. Kahn has been responsible for a number of housing schemes for New York City Housing Authority and was Consulting Architect to the City in 1941.

He took his degree at Columbia University School of Architecture, and also studied at the École des Beaux Arts. He has travelled widely in Europe and Asia. He is chairman of the A.I.A. Committee on Allied Arts and is the author of a book on 'Design in Art and Industry'. Mr. Kahn is also a keen and proficient painter in water colours.

Family Life in High Density Housing: Exhibition

In connection with the Symposium on 24 May an exhibition is being arranged to illustrate the theme under discussion.

The first part of the exhibition deals with the problems which arise from the changing pattern of housing in cities such as noise, dirt and damage to property, and the second part shows three ways in which these problems may be overcome.

The exhibition will remain on view until Tuesday 4 June (Monday to Friday 10-7. Saturday 10-5).

R.I.B.A. Diary

TUESDAY 4 JUNE at 6 p.m. General Meeting. *American Office Practice*, by Ely Jacques Kahn, F.A.I.A.

TUESDAY 18 JUNE. General Meeting. Council Election Results. Debate on *Systems of Proportion*. Dr. Nikolaus Pevsner, C.B.E., M.A., F.S.A. [Hon. A], will be introducing the subject, and Misha Black, O.B.E., and Peter D. Smithson [A] will be speaking for the Motion and E. Maxwell Fry [F] and W. E. Tatton Brown [A] against it.



Opening of the Architecture in Finland Exhibition by H.E. The Finnish Ambassador, M. Sakari Severi Tuomioja at the R.I.B.A., 10 April. Professor J. Leslie Martin, Vice-President, R.I.B.A., in the Chair

Professor J. Leslie Martin

Ladies and Gentlemen. Mr. Alvar Aalto has described to me, in his own inimitable fashion, the first lecture on architecture that he attended. Apparently the professor entered the room and looked at his class of three students and then proceeded to address them rather on these lines. He said, 'The point that I want you to appreciate is the universal importance of your profession. An urge to construct, to create, should be at the root of all human action. *Everybody should be trained as an architect*, and then, if after that, anyone might happen to wish to become, for example, a dentist . . .' The end of this sentence was lost to posterity and the professor walked out.

It seems to me that this story is a very adequate explanation of the very high standard of the work which we see around this room. First of all Alvar Aalto in a class of three represents a very high proportion of genius in the profession as a whole, and in addition to that fact the exhibition suggests that the whole of the Finnish people have been instructed in

architecture. I am therefore not surprised at what we see here today.

I have one or two words of thanks which I ought to make; first of all I should say a word of thanks to the patrons of this exhibition, both in England and in Finland. I should thank Mr. Rewell, who is representing the Museum of Finnish Architecture, Mr. Osmo Lappo, the commissioner who came over specially to supervise the erection of this exhibition, and finally there is a telegram which we have received from Professor J. J. Rahola, Director of the Finnish Institute of Technology. He sends his respects and it is his wish that the exhibition of Finnish Architecture should be a great success.

Ladies and Gentlemen. I would now like to call upon His Excellency the Finnish Ambassador to open the exhibition.

H.E. the Finnish Ambassador

Ladies and Gentlemen. It is a fact that this is the first time that Finnish architecture has been represented in Britain by an exhibition of its own.

Around me I see photographs of Finnish

architecture. I recognise these as ours, as products of the Finnish mind and work. This is perhaps because the subjects they depict are, like architecture in general, so closely associated with our life and action. But, as a non-professional, I can also safely say that some of these could have come from places other than Finland.

Yesterday Alvar Aalto was presented with the Royal Gold Medal and we take this as world recognition of the international level of the products of the Finnish mind. It has been said 'Finland is with Aalto wherever he goes', but it can equally be said that, like modern Finnish architecture in general, Aalto, at the time of his first impact on the world, was considered principally as the interpreter not of Finnish but of foreign tendencies.

Luckily my task is not to decide what is national and what is not in the field of which we are talking. It is evident that modern architecture is a branch of culture which, in our time, has developed a mode of expression that is beginning to be used and understood widely throughout the world, beyond the usual boundaries of

language and nationality, and in its development even small nations like Finland have played an active part.

It appears that this mode of expression is sufficiently flexible to adapt itself to different conditions all over the world. In my opinion we should strive to see the universal nature of modern architecture as a positive phenomenon, and put to good use the fact that we have an aspect of culture that really seems to live by creation, and which appears to have both the desire and the capacity to serve and improve humanity irrespective of race, religion, social class or political creed.

Together with this universality comes the danger of quantity. This phenomenon is naturally more threatening in large countries with big economic concerns than in small countries like Finland. Perhaps it is just because of their restricted possibilities that small countries have an opportunity and duty of their own to try to be the experimental laboratories for the world in the service of the greater entity. With such ideas in mind this exhibition was arranged.

I thank all those who already, years ago in this country, became interested in this idea and who made the first start, and also the Royal Institute of British Architects who, working in co-operation with the Museum of Finnish Architecture, have produced from that beginning the result we see now before us.

I hope that this exhibition will prove a fruitful stimulus to the British public. I believe that in professional circles at any rate it will be fruitful, for results may also spring from those points where the exhibition is imperfect or where the wrong solution has been found or where there is no solution at all.

Now, I have great pleasure and honour in proclaiming this exhibition open.

Mr. Richard Sheppard [F]: Your Excellency. We are very glad to have you with us today, and to welcome you as a repre-

sentative of your country and people. I think there is a phrase in the catalogue which sums up what we think of Finland and Finnish Architecture. On page 9 it says 'we have remained sceptical of overbearing ways and unnecessary ordering about' and I think it is a classic phrase which expresses exactly the qualities of their architecture. It is very humane and, as was said in the ARCHITECTURAL REVIEW, it is very tough and rugged. A visitor to this exhibition will feel, I am sure, that there is a very national feeling expressed in the buildings shown here. I can imagine them nowhere else. I think it is a very coherent and explicit exhibition of national character.

That goes also for the whole design and layout of the exhibition itself. The screens and drawings, and in particular this centrepiece with its direct use of timber, make it one of the most successful exhibitions which has ever been put on in this hall. I think too, if you examine the screens and the photographs, you will see exactly the same precision of design that one has come to associate with the work of Finnish architects.

After last night's meeting one thing that should be stressed is the lead the Finnish

designers and architects have taken in furniture, household equipment, such as lighting fittings, which are still in front of what we in other countries are trying to design today. On looking at them one realises that they are absolutely right, and the same goes for furniture. We all look back with delight and pleasure at the Finmar furniture, designed by Aalto, which first came into the market here in the 1930s. For these were the first uses of laminated plywood, and the form and precision of these early designs has not yet been surpassed. In all those domestic things the Finns have shown us a great example which we have been very slow to take. This exhibition is typical of the totality of the Finnish attitude to design.

I would also say, in thanking the Ambassador for coming, that his presence is an example of the interest in planning and architecture which his Government has displayed. When one surveys the mess and muddle of our towns and countryside in England today, which has arisen out of carelessness and indifference, and compares this with the order and beauty to be found in his own country, one hopes that our new position as one of the smaller democracies may cause some improvement.

What's the Form?

by Sir Howard Robertson, A.R.A., Past President R.I.B.A.

TIME WAS when the Institute was more or less of a Learned Society, and not much more. It was a pleasant state of affairs. The Secretary presumably was little bothered; the Librarian dreamed through the long hours in Conduit Street, interrupted only by some earnest scholar, or some ambitious student who must be nursed a little before urgent dismissal with a kindly pat. For time would be passing, and one must be getting along to the club to relax in a world where everything was stable, and 'isms' were neither frequent nor intrusive.

But today all that is changed. The Institute has many more members, and they are much more demanding. So too are all the other Institutions with which we deal, so too is the State which is so rapidly becoming our principal patron. As the modern building is becoming 75 per cent services, so is the Institute. The demand on it is 75 per cent for service.

More and more members expect the Institute to do more and more, provided always that it is someone else who does the work. 'What is the R.I.B.A. doing about it?' is the refrain, followed by a plaintive cry of 'What, me? No, no! Not me! I am really too busy. And after all, the R.I.B.A. has a staff.'

Precisely. It has a staff. But its real strength lies in the activity of its membership, especially that section of it which bears the brunt of the immense Committee work. The rest of us really have little effort to make beyond supplying information when it is asked for, and that is very seldom.

But now we all have a chance to co-operate. The Institute wants something from all of us. Not money this time, but merely information. It wants us to fill in a form so that for the first time the Institute really can know the facts about its membership.

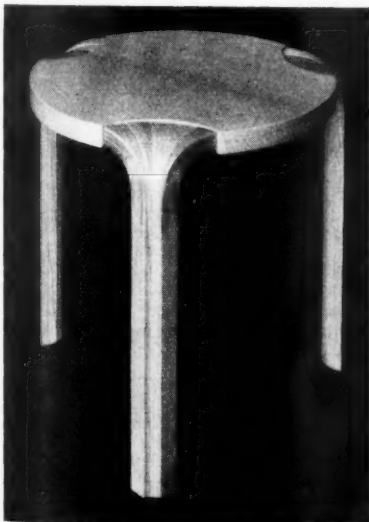
Ha! Ha! Just as we feared! Another form to fill in, additional to all the others! Another example of Paul Pry! Rather sinister, this request to know all about our professional lives! The beginning of the end of privacy; our little secrets set out for all to gloat upon!

Well, I hope that no one is going to feel like that. The filling in of this form is a first step towards an improvement in the status of the architect, the first strategic move in making us better organised to meet the foreseen and the unforeseen. For, if you don't know about your membership, not from hearsay and guesswork, but from solid facts, you can't present its case.

Better architecture, and more work for architects. That is what we all want, and it is nothing to be ashamed of.

But we will not get it without making a modest effort. We must pay our way with a little trouble. It is of no avail to have a first class staff at headquarters if we do not support it with the information it legitimately requires to do its job.

Our failure to offer the help which the President requests would be a horrid confirmation of an attitude which individually we would all deny. Namely, that as a membership we are too lazy to help ourselves.



Stool designed by Alvar Aalto

Presentation of the Royal Gold Medal for 1957 to Professor Alvar Aalto

at the R.I.B.A. on 9 April

Professor J. Leslie Martin

Vice-President R.I.B.A.

in the Chair

The Chairman: The main object of this meeting is the presentation of the Royal Gold Medal.

The award of the Royal Gold Medal goes back well over 100 years, in fact to 1848. Since then the Council of this Institute has year by year honoured those who have made an outstanding contribution to architecture, by proposing their names for royal approval. The basis of this choice is international. I do not think that the award has gone to Finland before, but we have moved towards it by going to Sweden, and on one occasion the Medal was awarded to someone of Finnish birth, Mr. Eliel Saarinen. This evening it is to be presented to Mr. Alvar Aalto, and, very decidedly, to Finland.

It is not part of my duty here to speak about Alvar Aalto and his work. I only wish to say what a very great pleasure it is to see him here and how delighted we are to have him with us again in England. I think that if he had any personal doubts about the merit of this award they must have been removed by the size of this audience and the appreciation which has been shown. The members of the Institute are very proud indeed to offer this tribute to a very great architect.

There are some guests here whom I think I should mention. We are delighted to have Mrs. Aalto here. We welcome very warmly indeed the Finnish Ambassador and his wife. Also we, who make this award so very readily in the 1950's, are delighted to have with us Mr. Morton Shand, who recognised Mr. Aalto's work in the 1930s and did so much then to bring it to our notice.

Sir Howard Robertson, M.C., A.R.A., S.A.D.G. (Past President): I wish, with regard to Aalto, that I could say 'I am a camera, and the camera has been around and photographed a great deal of his work', but actually I am a complete fraud, because for many years I have known Aalto's work but I have only seen glimpses of his dormitories on the Charles River at Boston and some of his exhibition work. For that I apologise, but I had better be honest, because I think Aalto is a man who would spot an untruth almost at once, in speech as in architecture.

It is many years since I was in Finland, but at least I have been there. It was in the days when F. R. Yerbury and I used to travel around, in the very far-off days when your hard liquor was served in a teapot or



Alvar Aalto being invested with the Royal Gold Medal by Professor Leslie Martin

you had to reach under the table for it. But I hope Aalto will not shed a tear, because our thirst was always quenched.

Yerbury and I thought that something architectural was happening in Finland. That was the first glimpse that we had. I think Mr. Morton Shand discovered this fact about the same time, or perhaps earlier. Anyhow, we went to Finland and we found some very fine and stalwart work. We saw the great railway station which we all know at Helsingfors, as it was then, and we visited Eliel Saarinen in his own house. We did not realise at that time that he was going to be a Royal Gold Medallist, as he was in 1950.

At the date when we visited Finland Aalto was just a teenager with a very precocious

mind, but since then he has increased enormously in stature. I do not mean physical stature, because he is still, like all very able people, such as Napoleon and myself, a small man. But he has acquired a reputation which I think is almost unique, in that it is questioned neither by the traditionalists nor by the most swiftly moving of the contemporaries. We all like Aalto's work, and that cannot be said of very many people. The battles which rage around some architects do not seem to rage around him. It may be that distance lends enchantment, but Aalto's work would always remain fascinating, even if it did not give the eye the pleasure which in fact the photographs of it reveal. I think the reason is that his design is essentially his own. Both

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in conception and in his approach to construction he is an individualist, but a national individualist, and he has a craftsman's sensibilities. He is a creator of trends rather than a follower of trends.

I think that, as far as my own limited experience is concerned, what has appealed to me very much in Aalto's work is his approach to design in timber. I remember an early exhibition work of his in Paris which had peculiar qualities of lightness and delicacy and strength. It was quite an eye-opener to me. Latterly I have seen pictures of roofs which suggest the same sense of structure and sense of adventure, and in some ways in my own mind I compare his adventurous handling of timber work to the treatment of reinforced concrete by the Italian Nervi. I feel that in a way these two men are growing in the same direction as regards fundamentals. I hope that Aalto does not mind being compared with a distinguished confrère who is an engineer, but I think rather an architect too.

There is another faint similarity which I might mention, though I do not think anybody here will agree with me. I see a kinship between Aalto and Auguste Perret, another Royal Gold Medallist of this Institute. I see it in the fundamental approach which Perret had to timber, in addition to his more famous reinforced concrete work, and, although the formal effect of Perret's work is so utterly different from that of Alvar Aalto's work, I think they had the same fundamentals in mind.

It is the custom of this Institute (I suppose it is inevitable in Institutes) that the recommendations for its awards are generally—I think nearly always—made in relation to established reputations. With Alvar Aalto we have the root of reputation already firmly established, but I suspect that the finest flower of his work is in bud at this very moment. I read that he has a vast programme of new work in progress to add to his past achievements, and that is a delightful thing for a Royal Gold Medallist. So many Royal Gold Medallists are practically at the point of death when they receive the award.

There are other speakers who could have performed this very pleasant and honourable task of mine much better. I leave it to them to expand—with, I hope, facts—upon what is the pleasantest of themes for a brother architect, namely, the wholehearted support of a recognition which results in Aalto being presented, as he will be in a few minutes, with this Medal, and his name being inscribed on the walls of the Royal Institute.

Professor Basil Spence, O.B.E., A.R.A., A.R.S.A. (Honorary Secretary): It gives me immense pleasure to add my tribute to that already paid by Sir Howard Robertson to Professor Alvar Aalto. I can truly say (and I am sure that I am not alone in this) that Alvar Aalto has had a very strong effect on my present attitude towards architecture. I can remember well the first example of his work that I saw, to which reference has already been made; that



Left to right: Sir Howard Robertson, A.R.A., Past President, Professor Alvar Aalto, Sir Edward Maufe, R.A. [F], and Mrs. Aalto

delightful pavilion in the Paris Exhibition before the war. I can truly say that there were two things in that exhibition which stand out very clearly in my mind. The first is the pavilion I have just mentioned, light, airy, with a lovely feeling of quality in timber, so fresh and so full of the age-old qualities that one cannot but remember it and think that it carries a great lesson for all architects. The other is the tragic Spanish pavilion, with the Mercury fountain and the fantastic mural by Picasso. Those two stand out in my mind, and this evening the Royal Institute of British Architects is giving Alvar Aalto the Royal Gold Medal, the highest compliment we architects can pay to any architect.

Apart from the company of Royal Gold Medallists in which Alvar Aalto finds himself, he is, of course, in the company of giants, the giants that form the history of architecture as we know it now. What sort of company is this? There is, of course, Frank Lloyd Wright, that amazing man, who stands for vitality, strength, freedom of thought, organic structure, and who at the age of almost 90 is contemplating putting up a skyscraper a mile high, a great Gothic pinnacle which he intends to put somewhere in America. He is, of course, a poet, a man who has produced the most beautiful lyrical buildings. He shows a wonderful disregard for his clients' comfort. We all know that he does not care whether the roof leaks or not, and, if the dining-room ceiling lets in water, when asked what to do about it he says: 'Move the dining-room table.'

Then how about the next giant, Corbusier? What a man he is! The way he throws about concrete! He does not care about the people who have to lean up against it and lacerate their arms. I well

remember how he championed the machine. Early on, when I was in Sir Edwin Lutyens' office in the 1920s, I was a very enthusiastic student of the Royal Institute of British Architects and underneath my board I had *Towards a New Architecture*, rather in the same way as at school we had 'penny dreadfuls' hidden out of sight of the master. I read all about the machine. I was tremendously impressed by this wonderful new doctrine, and we have seen Corbusier making it work. We have seen also that the Americans can do it so much better than he could. I think he got rather depressed by this; and then he goes and produces a Ronchamp. There is practically no machinery in the construction of Ronchamp—it is a stone structure, a powerful piece of sculpture, a wonderful personal work of genius, but I do not think it carries with it the doctrine of the machine.

Then there is Mies van der Rohe, dear papa Mies, with all his grandchildren, because he has a great many grandchildren. What does he offer? He offers the module clearly defined and purity for its own sake. He offers, in fact, to the lame architect a pair of beautiful chromium-plated crutches, and perhaps that is a good thing, because not all of us can run or even walk steadily.

What does our Gold Medallist Alvar Aalto offer? Of course, he knows better than I do, but I feel that he stands for humanity, the belief that architecture is really a background for human activity. I am a great lover of the Scandinavian countries and their architecture, and I think that, along with the other Scandinavians, Alvar Aalto displays a genius for making architecture gentle and kind to the touch. There is this genius for scale with human beings. It is dedicated to the use of human beings. The furniture that comes

from Scandinavia is always human. It is human in its concept. I feel that in all Alvar Aalto's work there is this humanity which is a very great thing. Secondly, I would say he stands for quality, the quality of materials, the appreciation of beautiful materials correctly used. I think that is extremely important. Apart from anything else, it gives great enjoyment to one's work if one can feel the material and feel what it can give to a design. It is like feeling a piece of jade in your hand. You know that the quality is not only on the surface but that it goes right into the heart of the material. Alvar Aalto also stands, I think, for freedom, the freedom of thought. There is no lack of style in his work, in this age when people say that we live in a stylistic vacuum. I wonder whether that is true. The architecture of Alvar Aalto is certainly not lacking in style.

I should like to salute you, Alvar Aalto, as a master.

Mr. Gontran Goulden, T.D. [A] (President of the Architectural Association): The Institute awards the Royal Gold Medal with due deliberation. The recognition of distinguished foreign architects in the past has often come late, sometimes indeed only just in time. The principles controlling this are obscure. It may be that there is some sort of idea that the award might go to the head of anyone insufficiently mature. The award of the Royal Gold Medal to Mr. Alvar Aalto, who is still in his fifties, is therefore a welcome and timely break with tradition, and I am delighted to be allowed the opportunity to congratulate him publicly.

Finland, as I think has been made all too clear already, is unhappily unknown to most of us at first-hand. Alvar Aalto is, however, a very lively visible export, though rather difficult to catch, as he is always *en route* from somewhere to somewhere else, calling here and flashing thither.

It is as difficult to find out anything about Alvar Aalto personally as it is to catch him, and my information about him is very largely second-hand. Aalto (this is very important) is essentially a man of Finland. He is Finland, a man of forests, lakes and rocky islands, the embodiment of a vigorous, independent and lion-hearted nation. Highly honoured in his own country, he is a member of the Finnish Academy, and he is an acknowledged leader in world architecture. He is internationally famous, but, in spite of his widely spread practice, no one could call him an architect of the international school. His architecture is Aalto, and Aalto, as I have already said, is Finland.

Alvar Aalto is a man of culture and a friend of many of the great modern painters of our time. He is also extremely well read in a large number of languages.

The only building of Aalto's of which I have had first-hand knowledge was the charming pavilion at the Paris Exhibition of 1937. It made a very deep impression on me at the time, and the impression has lasted ever since.

The point that I should like to emphasise



Finnish Pavilion, Paris, 1937

and underline about Aalto's work is that he seems to me to have a deeper feeling for the ground on which he puts his buildings, for landscaping and for gardening, than almost any other architect about whom I know anything.

Aalto's mind is full of inquiries and doubt. He believes nothing that he is told about materials or products. He accepts no material without at least a personal trial and experiment, and he accepts few products without modification. His detailing is immensely painstaking, and this can be seen not only in his buildings but also in his furniture. He was the first designer to appreciate the possibilities of laminated timber for furniture, and he was the first to make it a commercial and technical success. Many will remember the stir caused by the exhibition of his furniture at Fortnum and Mason's in, I think it was, 1933. These designs are still among the best in modern furniture.

On the lighter side, Alvar Aalto is an almost legendary figure. Stories, many doubtless apocryphal, have grown up about him. There was that mysterious leg of pork in a diplomatic bag during the war; there was the occasion when he was reliably reported to have dived overboard from a motor launch on the Thames to free a fouled propeller, and there was the famous motor drive in America with Frank Lloyd Wright. That is a well-known story but I must tell it again. It was reported that Aalto and Frank Lloyd Wright drove a long distance together through the American countryside, not a naturally beautiful countryside but a very subtopian countryside. After they had been going for some time, Aalto said to Frank Lloyd Wright: 'Couldn't we play some sort of game?' Frank Lloyd Wright said 'Yes' at once, and then he said: 'You look out on your side of the car and I will look out on mine, and we will count the number of buildings influenced by me.'

Alvar Aalto deserves our double congratulations today; first our congratulations on the extremely well-merited award

of the Royal Gold Medal and, secondly, our congratulations on almost certainly putting architecture at the top of page 1 of the next edition of *Who's Who*.

The Chairman: Mr. Goulden did not quite finish that story. I think Alvar Aalto was astonished to find that all the buildings influenced by Frank Lloyd Wright were on Frank Lloyd Wright's side of the car.

Mr. T. B. Harper Ellis, A.R.C.A. [A]: I feel that it is a great honour to speak on this occasion and to pay a brief tribute to Professor Aalto's work. He is having a growing influence on us here in Britain, and we recognise him as a great master and his work as true conceptual architecture. We can study closely his completed work and try to find out the genius of his approach, to find out what raises it so far above the routine solution and to study the physical properties of his buildings, in the hope that we can capture the emotions which they arouse.

Looking at Professor Aalto's plans, one knows that he has solved the analysis of his problem before attempting to make physical plans, and from this arises the conceptual idea which is sustained throughout. The route and destination within his buildings, the way in and the way out, the changes in volume and daylighting, the awareness of the external conditions from within, the identity of your position anywhere within the building, the clarity of the segregation of the parts of his building and the dramatic use of changes in level—all these indicate to what heights one must aspire in order to reach great architecture.

In the office block, the Rautatalo, you climb through the building to a covered court and that court is the dominant element, immediately identified. It is surrounded by continuous stepped galleries at each floor and the ceiling is pierced by dome lights. In the corners of the court are two dog-leg staircases, so that as you arrive at each floor you are exactly over the position where you started. You see the court, therefore your position is known, and since you double back on the staircase you have the same view coming out as you have coming in. This doubling back with the repetition of views of the dominant identification element is the key to the way in and the way out. In this building the importance of the court, both for identifying position and as the dominant element, is held throughout the plan, in that all the principal rooms open on to it, and, where there are corridors on the upper floors, the entry from the staircases to them are by way of the gallery overlooking the court. There is no alternative route on the way out in the form of the 'short cut' which, if once known, makes the so-called route of entry purely 'paper architecture'.

It is indeed a pity Professor Aalto did not carry out, for bye-law reasons, his competition scheme, for at one side of the court the stepped galleries rose for several further floors and the ceiling too was stepped up, so that all the galleries were seen from the main floor level.

Here we tend to treat the court as a light well for lavatories and festoon the walls with L.C.C. pattern soil pipes—not a desirable dominant element.

The library at Viipuri is a magnificent example of conceptual architecture. The loan and reference libraries are contained within a single volume. In the heart of the building is a grand staircase. The half landing and the upper landing surrounding the large half landing form the loan library and separate it from the reference library, which is on the lower level. What a wonderful idea to have such clarity and drama from the use of staircases, so that the two elements can be so beautifully resolved to read as a single volume! Here too there is no doubt about your destination, the upward and outward limits of the building and the way out. The changes in volume and daylighting are beautifully handled.

The Town Centre at Säynätsalo marks the unfolding of a new phase, the phase of flowing growth, still containing the disciplines of Professor Aalto's previous work, the route and destination and clarity in the disposition of the parts. You see this virile climbing composition. The route is as clearly defined as ever; you see the dominant element of the council chamber rising behind the pine trees. A staircase at the side of the council chamber rises to an open courtyard surrounded by the council offices, the caretaker's house and the library. You turn right to enter and see through the foyer windows the courtyard on your left. You double back up the brittle brick staircase which is wrapped around the council chamber. The stairs are lit by a continuous window at ceiling level. The transition from the open courtyard up the

completely enclosed staircase into the council chamber is most impressive. Dignity without pomp!

In Säynätsalo and in the M.I.T. building Professor Aalto has shown that the idea of his order is not one of apparent clarity. It is not geometrical and final as a Renaissance idea, but it is an order which emerges as the building is used. His buildings do not all speak at once. The dominant elements externally are the important parts within; they are all given their true significance.

I feel that the principles which apply to Säynätsalo and the M.I.T. building apply also to Professor Aalto's ideas on town planning—ideas of flowing movement, of clustered growth and not imposed finality.

Mr. Cedric J. Price [Student]: The patronage of architecture and the other arts is today more diverse than it has been at any other time. At various times in the past such close-knit patron groups as the Church and the aristocracy formed a comprehensive aesthetic code by which they could distinguish the good from the bad or the smart from the unsmart. Today, however, the members of the board of a nationalised industry feel little urge to compete in the same aesthetic field as the directors of a chain store selling shoes.

This collapse of the visual code is a reflection of the sickness of our civilisation of which architecture is a by-product, and it is essential to establish a new code or a new morality that appeals to and develops the sensibility, the imagination and the intellect of all. Clearly the architect plays a very important part in creating such an environment, and very few architects have

made a greater contribution in this field than that which has been made by our guest this evening.

The work of Alvar Aalto, through a mastery of form and the sensory qualities of materials and a complete understanding of the humane, not only stimulates but satisfies the senses, the intellect and the imagination. It is my sincere hope that the ceremony here this evening, together with the Discourse tomorrow and the exhibition which is to be opened then, will bring to the eyes of the public as well as of the profession the invaluable contribution made by this great man.

Therefore it is a great honour for me, with others, to welcome you, Mr. Aalto, here today.

Professor Aalto was then escorted to the platform by two Royal Gold Medallists, Sir Howard Robertson, M.C., A.R.A., S.A.D.G., Past President, and Sir Edward Maufe, R.A., M.A., LL.D. [F], and was invested by the Chairman with the Royal Gold Medal.

Professor Aalto: I am deeply grateful for this honour. The Gold Medal of the Royal Institute means to me the greatest award given in the large field of architecture, planning, construction, and all the arts covered by the field of architecture, the mother of all arts. My greatest gratitude is due to Her Majesty the Queen, who, on the proposal of the Royal Institute, has given me this Medal.

My dear colleagues and friends, I thank you for this occasion and for all the 18 carats. The heavy weight makes it difficult for me to stand up. It weighs me down, which may be good for my soul. I bow to you all and thank you.



The Royal Gold Medal, actual size



The R.I.B.A. Annual Discourse, 1957

by Professor Alvar Aalto H.C.M. (Finland)

given at the R.I.B.A. on 10 April

Professor J. Leslie Martin, Vice-President R.I.B.A., in the Chair

Professor Leslie Martin: The programme of lectures given by this Institute, and given usually to a specialist audience, is, of course, quite well known. But it has occurred to the Public Relations Committee that a great Institute of this kind could well support a lecture of a different kind and with a different aim. This lecture, which is to be given annually, is to be called a Discourse. This, I think, is an appropriate word. It suggests that the lecture will involve not merely statements, but that it should be also an assessment.

By some miracle of timing, this first Discourse coincides with the award of the Gold Medal to Alvar Aalto. I think this is important, because when this Institute makes its highest award we ourselves are faced with some kind of assessment. We look again at the work of the holder of the Medal. It is brought before us in the form of exhibitions, and again we re-assess it. This is actually taking place. The comparisons between the work of all the great masters, all the great leaders of architecture will again be made. The barriers will be drawn between them; the partitions will be erected.

Now these distinctions between the work of great architects are interesting, but these divisions do not occur to me as the important ones. If I drew any line at all, the line which I would draw would be horizontal and not vertical. Above this horizontal line I would choose to place the creative work of these great designers, and below it the rest. And the thing which would strike me, I think, when I look again at the work of Alvar Aalto, is a different series of distinctions. They would be distinctions between architecture of his kind, which is ordered, controlled, worked for, and not just accidental; between the detail of his kind which is the result of the completeness of a great idea and not just a trivial end in itself; between his kind of architecture, which cannot easily be drawn but rests in the building itself, and that which looks well only on the drawing board.

It is these things that I think we should assess. I do not know whether Alvar Aalto can explain the secret of these positive qualities of his work, but it is because his work contains them in such powerful abundance that we sit, this evening, at his feet.

THE DISCOURSE

I AM DEEPLY IMPRESSED by Dr. Martin's words, and especially by the correct and

crystallised wording 'horizontal line'. The main thing is not to make a difference of different personalities, different countries and different conditions. There is still that old thing—good and ill, good and bad. Our time is full of enthusiasm for, and interest in, architecture because of the architectural revolution which is taking place during these last decades.

There is a very, very small percentage of good and human construction in the world today. The title of the exhibition upstairs is 'Architecture in Finland'. It represents, of course, only a small percentage of Finnish building activity. The civilised, the cultural creation is too small in every country, and not only in my own country. I think that the percentage is the same in all the countries of Europe.

I think that probably Dr. Martin's words will go down in history as describing the way in which the activities of the architect should be pushed on the side of increasing the amount of minimum good, reasonably good, construction and planning for humanity—for more than 2 or 3 per cent per country.

The architectural revolution is still going on, but it is like all revolutions: it starts with enthusiasm and it stops with some sort of dictatorship. It runs out of the track. There is one good thing that we still have today; we have all over the world, maybe in Uruguay, maybe in Scandinavia, maybe in England, maybe in South Africa—in all these countries—well-organised groups of creative people calling themselves architects, with a new, real—what should I say?—direction for the world. Slowly, from being formal artists, they have moved over into a new field; today they are the *garde d'honneur*, the hard-fighting squadron for humanising technique in our time. With a client in Paris, a few days ago, I had a discussion about just such a simple thing as ventilation. He said, 'Technique *sans esprit* is the worst thing in the world'—which it is.

Let us see how we do this work. Are we doing it rightly? Let us take two poles. If I step down from New York Central Station, or a station in Chicago, and some of the young architects are there, the first question—if they do not know me—is, 'Are you old-fashioned or modern?' I have heard this question in all civilised languages and lastly in Portuguese, in Estoril. I think this is probably the most naive but the most used formula—'Are you old-fashioned or modern?' If we look deeper into this question, we see just why it is nonsense and nothing more.

There are only two things in art: humanity or not. The mere form, some detail in itself does not create a good humanity. We have today enough of superficial and rather bad architecture which is modern. It would be hard to find any architect able to design a Gothic or a Georgian detail today.

Let us take some capital of entertainment—Hollywood, for instance. Of course, all the houses are modern. You can find very few houses which really give human beings the spirit of the real physical life.

Let us take the other pole. A few months ago an Indian architect went to snow-covered Finland—I think he was from Bombay or New Delhi—and he had a book in which he had written all the questions which are the most important in the building art. Sitting down, he asked the first thing, after saying 'How do you do?'—What is the module of this office? I did not answer him, because I did not know that. One of my chief lieutenants was sitting on my right. He answered. He said, 'One millimetre or less.'

These are two poles which demonstrate first the pendulum of the most popular forms of discussion, and then this last one, this nonsense number two—the seeking of a module which should cover all the world. This represents at the same time the dictatorship which finishes the revolution, the slavery of human beings to technical facilities which in themselves do not contain any piece of real humanity.

How should we carry on our fight? In what way? What should be the real inter-communion between all the architects of the world, and what should we tell the people? I think we should go back to Dr. Martin's horizontal line. The Institute of Finnish Architects, a few days ago, left at the Secretariat General of the International Union of Architects in Paris, a suggestion that we should state the obstacles which keep the good product back, why so few cities are well planned, why so many good city plans are turned down, why there is so small a percentage of good housing, and why in our time we almost lack official buildings which are symbols of the social life, symbols of what may be called democracy—the building owned by everybody.

The reasons which really stop culture at the line of 2 per cent, 4 per cent or 5 per cent of the whole are, of course, deep and very difficult to analyse. That is the question of our time; it is a question of the deeper meaning of civilisation and culture, a question of the movement over from, let

us say, the society of 1700 to our industrialism. Every piece today is made by different methods from those used before. Our life has taken on a completely different form. This must, of course, hurt; it cannot be a peaceful movement. There are, of course, obstacles to a larger amount of good products; but there are things which can be eliminated by goodwill, and if we study those things I think we should get a larger amount of good things for the little man in this democracy of today.

I would add one thing more: there should be a discussion on a broad level. There is today a tendency which is not very nice. There are exhibitions of architecture and of industrial art or arts. There are hundreds of these exhibitions organised not only here but on the Continent. The journalists say, 'Today Sweden is a leading country in glass; tomorrow, Finland is a leading country in glass, this country is leading in pottery, Brazil is leading in coloured façades.' I do not think this is a correct way. We should put all the cards on the table and speak together, plan together, and openly talk about our weaknesses. We should not be like puppets and say, 'Yes, we are leading in glass today.'

We should remember the great eras of literature, the time of Voltaire, Rousseau, or even later. You have Bernard Shaw, Strindberg or Anatole France. What was the glory of these men? It was criticism, and at the same time it was the highest class of art, and at the same time it was fight. You could not think about Bernard Shaw without at the same time thinking of him as a fighting man. In their deepest meaning I think that fighting and the highest class of art conform, and in their deepest meaning they belong together. It may be that there never existed a high class of art without this mysterious combination.

I think that architectural communion, discussion and contact, and our speech to the public should be the same as with those literary men. Of course, literature and architecture are very, very far from each other, sometimes out of sight.

What are the main obstacles which are stopping us from getting 100 per cent production? I cannot take them all, but I pick up a few things which might be of the sort that could be eliminated.

First of all, there is the enormous difficulty of educating people to architecture. It requires a command of many fields, an unusually high cultural standard before you can get a response and get people to understand. I was once very proud when I saw here in England a little book for schools giving preliminary education in architecture. It was for very little children in an elementary school. I think it is good to do that, but I am afraid that architecture which covers all the formal and structural world that is around us is too complicated to be an educational thing on the children's level. Probably if we give some lectures in architecture to seven- or eight-year-old children it is the same thing as teaching sex in the first class of a primary school.

But I think that we could give on the upper

level quite good education, but I think it should not go the same way as ordinary art criticism. We may lose our horizontal line if it goes that way. The art critic is today about 100 years old. The habit of writing critical articles about single artists may not be much older. It is growing in the Press and it will continue in the same way. It will just be criticism of individual cases, and the real line will be lost. The real line is to plan and to build for the little man, for his benefit.

We may find that the best methods are real examples. Let's say, we should do a little group of housing and so on, as experiments, and let people see them. We are working in a very unlucky field in the sense that we do not first have laboratory time before building. We are the only ones in the modern industrial world who have to have the design and directly build it. There should be a laboratory period between those two things. It can be made individually but every civilised country should always have a programme of experimental cities and experimental buildings as a real nation. England has had things like that from very early on. We could talk of Raymond Unwin, or the Weissenhof in Germany where there was culminating art, individual art, but it was not really meant as a laboratory period between. I do not think we can really educate people on how they should live without having that sort of thing.

Let us take as the second thing the mechanisation, the standardisation, in our time. You all know of the mechanisation of all our lives; it is part of democracy. It is the only way to give more people more things. But we know that at the same time mechanisation and standardisation often bring down the quality. This means that biologically democracy is a very difficult process. We cannot give to everybody the same quality as we can give to a few people, as was done in the past.

Once Madame Aalto, beyond the seven seas, had a discussion with a great industrialist. He said that he had a wonderful new idea of real rationalisation in a field where no standardisation, no rationalisation existed before. He said, 'Have you seen how many steamships and boats are transporting coffee from Brazil to other countries? It is an impractical way. Coffee is a natural product and is not a rationalised product.' He had thirty patents covering a method of pressing 1 cu. metre of coffee into one little pill which would reduce the tonnage of ships required for its transport to 5 per cent of those used. It really was wonderful rationalisation. It was a really great result of human thinking. But Madame Aalto asks, 'What about the coffee—how does it taste?' And the reply is, 'Oh, that is the one bad thing, it doesn't taste correct!'

That, in a nutshell, shows the enormous difficulties that we have, in keeping every man in the street on the same level and giving him equality. It is even more difficult when we go from material qualities to qualities of the spirit. There the world looks very bad today.

But there are possibilities of using standardisation and rationalisation for the benefit of the human being. The question is, what should we rationalise and what should we standardise? We could make standards which raise the level not only of the living standard but the spirit too. One very important thing would be if we could create an elastic standardisation, a standardisation which did not command us, but one which we would command. Slowly, slowly there is more and more mechanical dictatorship over us. We cling to philosophical methods, and in this case, if we would command the material, the philosophy's name is architecture and nothing else, and we could create a standardisation which would have human qualities. We could try things which give more to human beings. It does not matter how much electric cables or the wheels of motor-cars are standardised; but when we come to the human home, to the things which are close to us, the problem is different—it becomes a question of the spirit, it becomes a question of the intellectual paragraph in the standardisation.

Once I tried to make a standardisation of staircases. Probably that is one of the oldest of the standardisations. Of course, we design new staircase steps every day in connection with all our houses, but a standardised step depends on the height of the buildings and on all kinds of things. You cannot use the same step over all, because it has to be elastic enough to be put in everywhere. We tried to solve the matter by an elastic system in which the steps were going in each other, but in such a way that the proportion of the horizontal plane to the vertical plane always kept the formula which we have had since the time of the Renaissance, I think, from Giotto, and even earlier from the Periclean time. For the movement of a human being there is a special rhythmical form. You can't make a step how you like; it must be a special proportion. I spoke about that in the University at Gothenburg. The Rector said, 'Stop for a while, I want to go to the library.' He went downstairs to the library and came out with a book—Dante's *Divine Comedy*. He opened it at the page where it says that the worst thing in the *Inferno* is that the stairs had wrong proportions.

It is from those little things that we should build up an harmonious world for the people. There are possibilities if everybody would try to do that and would try to get the people who are in the administration to just follow our line.

I will take one thing more; it is that we are working always with very large sums of money. Everything we do means a large investment. City planning probably is the biggest. Simply to change the traffic is today such an expensive thing that people cannot politically get to the point of changing it. We know today that the little man on the street has automobiles all around him. Every minute, even in the smaller towns, hundreds of motor machines are passing the pedestrian, the little man. He is in a much worse position than the engineers staying in a paper factory eight

hours per day. In a paper factory generally there are no motors, only electro-transmissions, and if there are motors, there are very few. But on the street there are hundreds passing one all the time. Our streets and cities were designed for completely different purposes—as was the nice Boulevard Italien, for horse traffic, a few horses here and there. Now it's full of automobiles—and we know that they are not neutral. They are putting out a very dangerous heavy gas which lies on the streets. Almost all of my friends in the higher medical level think that today we are paying a very high price for our inability to build a new traffic system in which pedestrians and automobiles are far away from one another, not to speak of housing and living—which should be very far from that. The answer is cancer. The price that we pay for our streets is in the bills for the enormous hospitals which all over the world we build today.

Then there is our old enemy, the speculator in real estate. That is the enemy

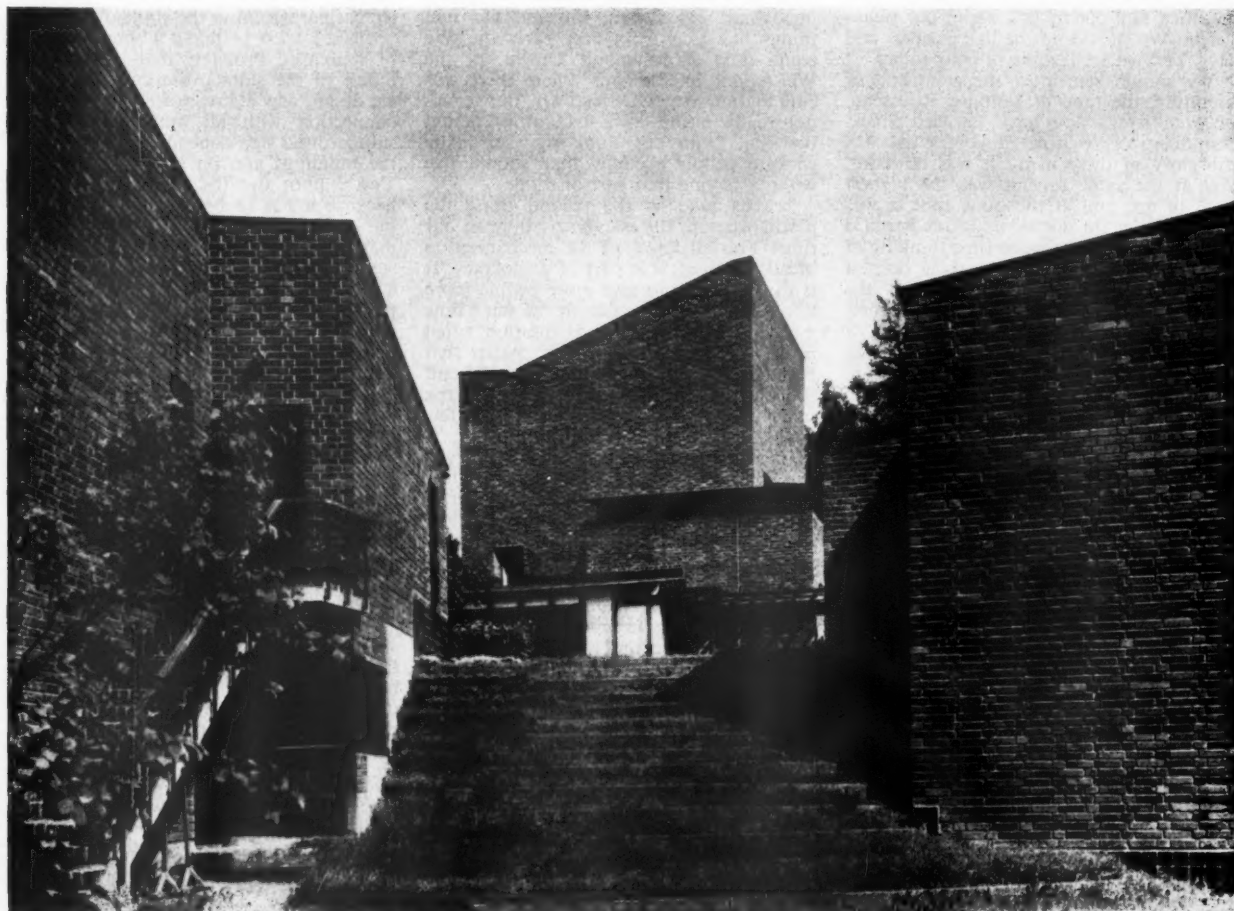
number one of the architect. But there are other enemies too who may be even more difficult to defeat. For instance, we have in my country—and there are other forms in other countries, for in this matter we are all on the same level—the theoretical line of building economy, which is popularly said in this way: 'What form of house is most economical?' If we have, let us say, a five-floor, a six-floor, an eight-floor block of flats, there is the question, 'How thick should it be? How long? What is the cheapest way we could give people the badly needed dwelling-houses?' Of course, this may be called science. But it is not. The answer is very, very simple—the thickest house is the cheapest. That is clear. One can go farther and say that the most inhuman house is the cheapest, that the most expensive light that we have is daylight—let us keep that out, and then we get cheaper housing. The most expensive thing is fresh air, because it is not only a question of ventilation, but also a question of city planning. Fresh air for human

beings costs acres of ground and good gardens and forests and traffic and meadows.

Real building economy cannot be achieved in this ridiculous way. The real building economy is how much of the good things, at how cheap a cost, we can give. But we should never forget that we are building for human beings. It is the same in all economy—the relationship between the quality of the product and the price of the product. But if you leave out the quality of the product, the whole economy is nonsensical in every field, and it is the same in architecture too.

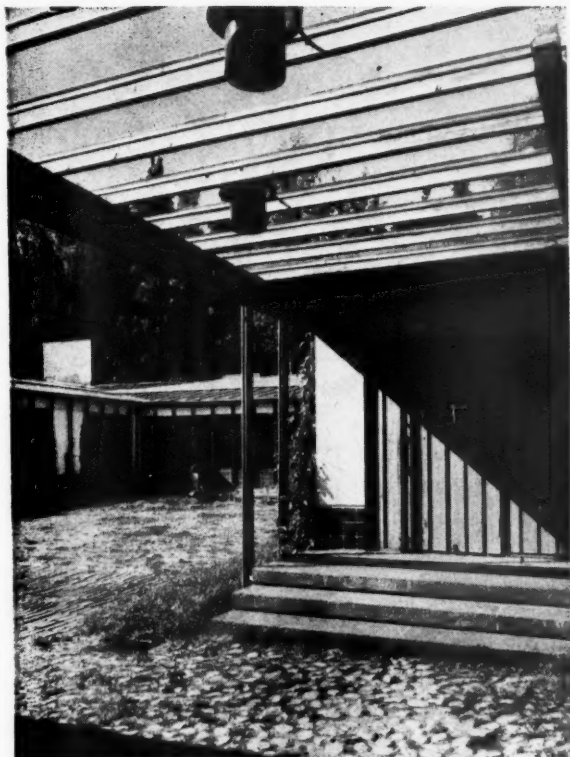
That sort of line is very suitable for propaganda; propaganda in which the word 'economical' is used wrongly, is anti-human. Sometimes it goes so far that it is completely *vice versa*. I know of schools which are turning out stuff on this sort of propaganda line which is probably cheap in figures but per child very expensive.

Let me take something more from these groups. I jump from the economic con-



CIVIC CENTRE, SÄYNÄTSALO: This is a sort of town hall for this little city. It is just so big that these people of the little city can get together there. It is only a few tens of metres. It is small enough. It should be small for a small town. This town cannot grow bigger because it has a limit due to the island system. But the *piazza* is about 4 metres higher than the surrounding traffic. Let us say that a democratic meeting of these

people—if they do these things—should be here in this *piazza* and should always be on a level up from the motorised level. I think one of the ways to solve this problem is to have a *niveau* for motors and a *niveau* for human beings. That is, today, probably the easiest way. Anyhow, there is a vertical problem, and not only a problem of dividing horizontally.



CIVIC CENTRE, SÄYNÄTSALO: There is a protected courtyard for the people

sideration to the question of decoration. We all know that there is an independent decorative life in the world. There is industrial art which has no relationship to the mother, to architecture. It is decoration that you can put everywhere.

It is a very comical thing that wrong rationalisation, rationalisation made anti-human, the wrong use of the word 'economic' and decoration, are the *trois cochons*—they work together. A week ago in Switzerland I saw large lines of buildings

We first do a thing by instinct and then afterwards we find the reason for it. For me, it is about 80 per cent this way, and for only 20 per cent do I have the reason first. This picture is one of the cases where I had the reason first. In the winter it is very cold and in the summer it is about the same as here. The difference between winter and summer is 17 deg. C., which is very much. That means that in winter time, to keep condensation out, and in summer time, to keep heat out, we should have ventilation between the upper roof and the ceiling. Mostly ceilings are made on two constructions, the main rafter and the secondary one. Here they are parallel, so the air can go through all the way. That is why these 'butterflies' are there, because this one main horizontal construction is supporting the other ones too, which means that I do not need any secondary things inside, and I get the air through.



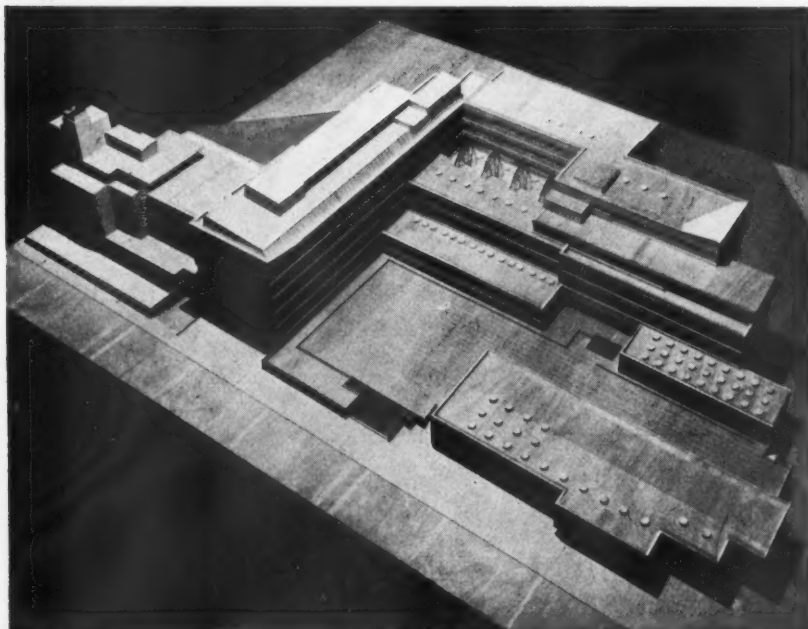
This is the main hall for the parliament of the little city, with 18 members





NATIONAL PENSION INSTITUTION, HELSINKI, 1956: This is a building which is not quite ready yet. The building has the same unhappy conditions as all big office buildings have—the enormous concentration of human work. This concentration is one of the most difficult things for us architects really to get hold of. There are 800 office workers in this

building. There are the offices themselves, libraries, and a restaurant for 400 people, in two sittings, and there is a large *piazza*, some 3½ to 4 metres higher than the motorised level. The restaurant is separate, with doors out to the garden, and the garden is, as far as possible, separated from the motor traffic.



made to a mechanical standard without any spirit, but in good marriage with the decoration. The decoration was there to cover the things which otherwise would look too hard and too inhuman.

But this triangular activity leads to an uncultured society and non-cultural buildings—this combination of three things which do not belong together. We get an unorganic society. We should work for simple, good, undecorated things, but things which are in harmony with the human being and organically fitted to the little man in the street.

I come now to some things which I cannot deal with without pictures. Some while ago in Venice I tried to make a philosophical speech, but the reception of it was very bad. People said, 'We do not believe in only philosophy, because this is not a philosopher's profession; we should like to see why you do this and that in your buildings, because if you show them, then we can criticise you and we know whether you are right or wrong. With mere words you can tell us all the truths without our being able to criticise you.'

It may be a tradition for architects who, like me, are bad philosophers that they should show something which is open to

criticism and gives a criterion for what we say in words. I will therefore show a few pictures. They are all of my buildings. Not being a critic, I cannot criticise my colleagues, but I can show a few functions in my own buildings. They are not shown for aesthetic purposes, so a few words in connection with them may do what the people of Venice found to be the only correct way.

Professor Aalto then showed a number of slides, a selection from which are illustrated, together with extracts from his comments.

THE VOTE OF THANKS

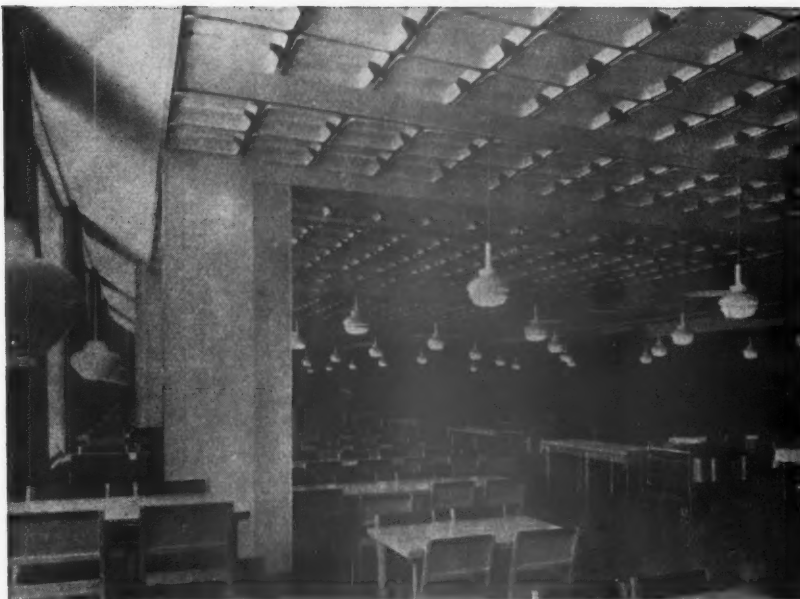
Mr. J. M. Richards [A], in proposing a vote of thanks to Professor Aalto, said: This has been a truly memorable occasion. There are very few architects we in England admire as much as we do Aalto, and I do not think there is one we admire so exclusively because of his buildings. So many of the great names of modern architecture are great names because of theories they have propagated, or principles they stand for, or attitudes they exemplify; but Aalto is not concerned with upholding any theories and he does not strike attitudes—he simply builds. And paradoxically, when he speaks as a fighting man, as he has done this evening, he does so with even more authority on that account.

But since he builds according to no settled rules, what he will build next is always unpredictable. That is one of the things that makes his work so fascinating and stimulating to his fellow-architects. Nevertheless, unpredictable though they are, we always know that his buildings will have a combination of certain qualities.

I speak as someone who had the privilege of visiting Finland before the war and seeing some of his early buildings—some of the buildings that led the revolution he has spoken about this evening; and I also had the privilege of being there a month or two back and seeing some of his latest ones, which I may say are among the buildings that give us encouragement to feel that we can find a way of avoiding the dictatorship which he said revolutions often lead to.

These qualities in his buildings are, it seems to me, first of course that vivid plastic imagination that makes his work unmistakably his own; then the existence in every instance of a basic idea of the building, which nothing is ever allowed to confuse or overlay; then, appropriateness of structure, which often means originality of structure, though never originality for its own sake; and finally a most fertile invention when it comes to details—which are always personal to him, yet spring directly from his deep understanding of materials; from his determination, if I may define it like that, to make materials serve his purpose as an artist by intensifying, as it were, their natural characteristics.

Beyond all that there is his basic humanity, and that, of course, has been the real theme of his discourse this evening. And hearing him talk, in his delightful, spontaneous way, about his buildings and



THE NATIONAL PENSION BUILDING:

The interior of the restaurant showing the heating panels on the ceiling. Below: the same building





RAUTATALO OFFICE BUILDING, HELSINKI, 1954. Left: We often say new buildings cannot be harmonised with old ones . . . but all of us know that we should try at least to be tactful to past periods. This slide shows

the elements in his buildings, I for one felt that I had been given an insight into the magical process by which science and humanity are merged in his work. That, I think, is the great lesson we can draw from him. So many architects are bothered by the conflict there seems to be between the industrial techniques of our time and building as a natural intuitive process, a conflict which Aalto's genius has somehow managed to resolve. I am sure it is this, his concern—to refer to his delightful story earlier this evening—with how the coffee tastes, which makes us value his work so highly. Besides the fact, of course, that he is the author of so many excellent buildings, it is this that makes him, as someone (I forget who) recently said, the kind of architect that all architects would like to be.

Mr. Vice-President, as you reminded us earlier, this is the first of a series of Annual Discourses, and I think we shall be fortunate if subsequent Discourses are as engrossing and as inspiring, and as truly personal to the giver of them, as this one has been.

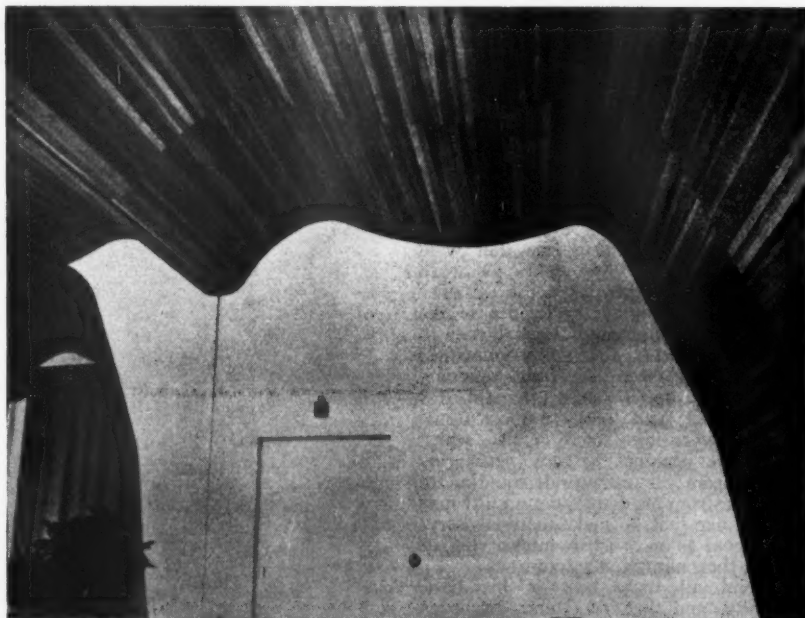
I have real pleasure in moving a most grateful vote of thanks on behalf of everyone present.

The vote of thanks was accorded by acclamation, and the meeting terminated.



how difficult the question of tact is (note building on extreme right of the picture).

Right: The Rautatalo Building, covered courtyard with café



The idea of change should naturally be to build houses like a shell around us by a bio-dynamic process. That would almost result in a free form. But it is very difficult to create the free form because we do not have the methods. This is a prototype, in the library at Viipuri

Overseas Tour of the President and Secretary R.I.B.A.: Diary—I.

AMID THE JOURNEYS and many engagements of his world tour, undertaken with the President, Mr. Spragg found time to send home an interesting diary of their travels and meetings with representative persons abroad. A brief summary is given below.

Departure, 20 March 1957

Mr. Cross and Mr. Spragg boarded a Britannia aeroplane at London Airport and were seen off by Mr. Gontran Goulden, President of the Architectural Association, and Mrs. Goulden, and by Mr. George Mansell, editor of the ARCHITECT AND BUILDING NEWS. A number of telegrams and messages wishing *bon voyage* awaited them.

After short stops at Karachi and Calcutta Mr. Cross and Mr. Spragg reached Singapore on 21 March. Here they were welcomed by Mr. H. L. Bloomfield [F], the President of the Council of the Institute of Architects of Malaya, the Past President, the President-elect, the Vice-President, Hon. Secretary and other members of the Institute. After a reception at the airport the two 'ambassadors of goodwill' were driven to the famous Raffles Hotel, where they were impressed by the magnificence of the suites allotted to them.

The next day Mr. Cross and Mr. Spragg were taken for a drive through the city where, in the Chinese quarter, they had their first glimpse of the East. They found Singapore an exciting city and noted the spate of building work that has been going on since the war. Mr. J. W. Ferrie [A] and Mr. C. Y. Koh [F] were their hosts at lunch in the well-known Elizabethan room at the Raffles Hotel, with its vast stone fireplace. In the afternoon they were taken on a tour of the Chinese temples, their conductors being a party of Asian members of the Institute of Architects of Malaya, led by Mr. Ho Kok Hoe.

The next day (23 March) Mr. Cross visited Johore, where he sat on the Sultan's throne. In the evening the official dinner and dance was held at the Singapore Swimming Club; it was attended by some 340 guests. Excellent speeches covered a wide variety of topics, Mr. Bloomfield emphasising the need for maintaining a high standard of professional morality in these days of fierce competition and particularly with the country approaching nationhood. Mr. Cross expressed the gratitude of himself and Mr. Spragg for the abounding hospitality and welcome extended to them, and spoke of the Royal Institute's hopes and aspirations in relation to the Allied Societies overseas. Two pleasant features of the evening were the presence of the President, Mr. Eric Gardner [A], the Hon. Secretary, Mr. G. Meehan [A] and other members of the Council of the Federation of Malaya Society of Architects, who attended as guests of the Institute of Architects of Malaya. The other pleasant feature was the presentation to the R.I.B.A. of a very handsome silver cigarette box, made by



Dinner of the Institute of the Architects of Malaya. Mr. H. L. Bloomfield [F], President I.A.M. (1956-57), proposing the toast of 'The R.I.B.A.' Mr. Kenneth Cross is on Mr. Bloomfield's right, and Mr. C. D. Spragg is on his left.

Malayan craftsmen. It was the gift of the Federation Society and was handed over by Mr. Gardner with some gracious words.

The dancing after dinner was interspersed with an exhibition of lion dancing, which was probably never before seen by many of the local architects; it was given by two large and gorgeously attired lions, two men to each, with reserves ready to rush on and take the place of the performers when exhausted.

The next morning (24 March) was taken up by a visit to the offices of the architect of the Public Works Department, where Mr. Ken Brundle [F] showed the plans and a model of the Singapore airport, already partly built. This was followed by a visit to the new nurses' quarters and school, designed under Mr. Rundle's direction. Then Mr. Stanley Woolmer [F] showed much of the work of the Singapore Improvement Trust, including the building of a new town, which will contain some 50,000 persons when completed.

Mr. Bloomfield then took the two visitors to the University of Malaya, with its existing buildings and new ones in the course of construction. It was interesting to see work going on at all the sites on the Sunday morning, and women coolies working on the jobs. Then Mr. Cross and Mr. Spragg attended a joint meeting of the Councils of the Institute of Architects of Malaya and the Federation of Malaya Society of Architects, under the chairmanship of Mr. G. E. Magnay [A]. The subjects discussed included the organisation of the profession in South-East Asia and architectural education. Although it was not an occasion for the passing of formal resolutions the meeting was infinitely

worth while, and a better understanding of many difficult points was reached. There was agreement on the principles put forward by the R.I.B.A. regarding education and examinations overseas and the closer association of all the overseas Allied Societies. The day ended with a traditional Chinese dinner at the Chinese Club, organised by Mr. Koh and attended by members of the Council of the Institute of Architects of Malaya and their ladies, and by Mr. Gardner.

The next morning (25 March) was taken up with further informal discussions about education and so forth, followed by lunch at the Peking Restaurant, given by the President and Executive Council of the Singapore Arts Society. Then a visit was paid to the Raffles Museum and Library. In the evening Mr. Bloomfield and members of the Council of the Institute of Architects of Malaya gathered at the airport to wish Godspeed to the departing visitors on their way to Perth.

Perth

Mr. Marshall Clifton and Mr. E. G. Sier, President and Secretary of the Western Australian Chapter of the Royal Australian Institute of Architects, met Mr. Cross and Mr. Spragg on their arrival at the airport (26 March). Mr. Clifton took them to visit Sir Charles Gairdner, the Governor, and then to lunch at the open-air restaurant in King's Park, where they were joined by Mr. Ken Duncan [F], the Immediate Past President of the Western Australian Chapter.

The morning of the 27 March was taken up with a visit to the School of Architecture at Perth Technical College, where the two visitors were met by the Chairman and

members of the Education Committee of the Western Australian Chapter and were shown over by Mr. F. S. Bolland [A] and members of his staff. The course is a five-year one recognised by the R.A.I.A. and through them by the R.I.B.A. Until recently the first two years were full-time and the remaining two years part office and part school. Mr. Cross and Mr. Spragg then went to the Council House, where they were first received informally by the Lord Mayor, where they also met the Minister of Works, Mr. Tonkin, and a previous Lord Mayor, Sir Joseph Totterdell. The party then went in procession to the Council Chamber, where the Council and many prominent citizens were assembled. Mr. Cross and Mr. Spragg were seated on the dais on the right of the Lord Mayor, who formally welcomed them in a gracious speech.

In the afternoon a ceremony was held at the nurses' quarters buildings, King Edward Memorial Hospital for Women, where Mr. Cross presented the R.I.B.A. Architecture Bronze Medal to Mr. A. E. Clare [F], Principal Architect of the Public Works Department. Mr. Cross unveiled the plaque and presented a replica of the medal to the Minister of Works as representative of the building owners. The buildings were then inspected.

An interview was given in the evening to a representative of the Australian Broadcasting Commission, after which Mr. Cross and Mr. Spragg were guests at the Adelphi hotel, where many members of the Western Australian Chapter were gathered. Mr. Clifton proposed the health of the two guests, who were accorded musical honours. Mr. Cross replied and then Mr. E. W. Warne [A] spoke of his long association with Mr. Spragg through being at one time the official R.I.B.A. corresponding member of the Royal Western Australian Institute of Architects before the R.A.I.A. was formed. Later the two visitors were driven by Mr. Sier to Perth Airport, where they embarked on the night plane for Adelaide.

Adelaide

Adelaide was reached just before 6 a.m. (28 March) and there Mr. Cross and Mr. Spragg were met by Mr. L. G. Bruer [F], Acting President of the South Australian Institute of Architects, by Mr. J. S. Hall [A], Vice-President, and by Professor R. A. Jensen [F]. During the morning official calls were made on the Lord Mayor, Mr. J. C. Phelps, the Governor of South Australia, Air Vice-Marshal Sir Robert George, and the Premier, Sir Thomas Playford. The Council of the South Australian Institute were then hosts for a lunch at the South Australian hotel. In the early evening the visitors attended a gathering of many members of the South Australian Institute, the Lord Mayor also attending.

The next morning (29 March) a visit was paid to the Waite Agricultural Research Institute of the Adelaide University and Council of Scientific and Industrial Research, situated a few miles out of Adelaide; the visit was made in the com-

pany of Mr. L. Laybourne-Smith [F], Mr. Bruer and Mr. A. E. Welbourn [A]. This was followed by a call at the Stonyfell vineyards, where the processes were explained. The party then returned to Adelaide to attend a luncheon party at the Adelaide Club, arranged by Mr. Laybourne-Smith. Afterwards Mr. Laybourne-Smith and Mr. Walter Bagot [F], one of his partners, conducted Mr. Cross and Mr. Spragg to the School of Architecture, where they were met by Mr. Gavin Walkley [F], Professor Jensen and members of the staff. The work of the students was inspected. Later the Council of the Adelaide University gave a sherry party in the University Staff Club, and this was followed by a private dinner party given by Professor and Mrs. Jensen.

30 March. In the afternoon Mr. J. D. Cheesman [F] took the two visitors for an interesting drive through some of the pleasant country surrounding Adelaide, including the highest point—Mount Lofty. A typical South Australian farm was inspected, and the day ended at Mr. Cheesman's home at Port Noalunga on St. Vincent's Gulf.

Part of the morning of 31 March was spent in dealing with correspondence, and then Mr. R. O. Shepherd, Hon. Treasurer of the South Australian Institute, took the two visitors to the interesting contemporary house of Mr. Gavin Walkley, preparatory to lunch with Mr. Shepherd and Mr. Walkley at the South Australian Hotel. Mr. Shepherd then drove Mr. Cross and Mr. Spragg to the airport, where Professor and Mrs. Jensen and their two sons were waiting to wish them *bon voyage*.

Melbourne

At Melbourne the two visitors were awaited by Mr. W. Race Godfrey [F], President of the Royal Australian Institute of Architects, and Mr. Harry Winbush [F], President of the Royal Victorian Institute of Architects, who drove them to the Hotel Australia, which was to be their home throughout the Convention. Then followed a small dinner party given in honour of the visitors, at which Sir Arthur Stephenson [F] was present. After an informal meeting with the Council of the R.A.I.A., which was still in session, a return was made to the hotel for Press interviews and photographs.

1 April. This was the first morning of the Seventh Australian Architectural Convention, and during the morning the President and Vice-President of the R.A.I.A. and the President of the Royal Victorian Institute of Architects accompanied Mr. Cross to pay official calls upon the Governor of Victoria, the Premier of Victoria and the Lord Mayor of Melbourne. An exhibition of the premiated designs for the Sydney Opera House competition was opened at the National Gallery by Professor Brian Lewis [F].

The official lunch was held at the Hotel Australia with Mr. Race Godfrey in the chair; it was attended by the Governor, General Sir Dallas Brooks, and Lady Brooks, the Premier, Mr. A. G. Bolte, and

Mrs. Bolte, and the Lord Mayor, Sir Frank Sellick, and Lady Sellick. After speeches by Mr. Godfrey, the Lord Mayor and the Premier, the Convention was officially opened by the Governor.

In the afternoon the Lord Mayor received Mr. Cross and Mr. Spragg, the President and Council of the R.A.I.A., and the President and Executive Committee of the R.V.I.A. The speech of welcome was replied to by Mr. Godfrey and Mr. Cross. The reception was followed by a very impressive service at St. Paul's Cathedral, designed by William Butterfield, where the address was given by the Bishop of Geelong.

2nd April. In the morning papers were given by Professor H. J. Cowan on 'The Role of Structure in Contemporary Architecture', and by Dr. F. W. Ledger on 'The Architect and the Planner'.

In the afternoon Mr. Cross and Mr. Spragg took part in a tour of inspection, including the swimming pool built for the Olympic Games and the fine Wilson Hall at Melbourne University. In the evening a public address on 'The Architect and an Expanding Australia' was given at Wilson Hall by Professor Sir Douglas Copland, Principal of the Australian Administrative Staff College.

On 3 April Mr. Cross spent the day preparing for a television broadcast and for the address he was to give at the R.A.I.A. annual meeting in the evening. Mr. Spragg was taken to see the Upper Yarra Dam project. The dam, which is some 63 miles from Melbourne, is being built to provide more water for Melbourne, and the chief engineer explained the project; it is a vast concern estimated to cost nearly £14 million.

After Mr. Cross had given his television broadcast he and Mr. Spragg went to the public lecture theatre at the University, where the annual meeting of the R.A.I.A. was to be held. Before the retiring President, Mr. Godfrey, gave his valedictory address, he sprang a delightful surprise on the two visitors by announcing that the Council of the R.A.I.A. had decided to award Life Fellowship to Mr. Cross and to make Mr. Spragg the first Honorary Associate of the Institute. He then presented them with their certificates.

Mr. Godfrey, having given his address, handed over the reins of office to Mr. W. T. Haslam [F] of Adelaide. Mr. Cross then gave his address in which, after expressing thanks for the honour just conferred on him, he spoke of the work of the R.I.B.A. and its proposals in relation to examinations at home and overseas and for closer co-operation with the overseas Allied Societies. Mr. Spragg also expressed his thanks for the signal and unexpected honour conferred on him and also for the kindness shown to him by so many old and new friends.

4 April. It was pleasant to Mr. Spragg to meet again Mr. Hugh Morrison who, before going to Australia some eight years ago, was sub-editor of the JOURNAL. Mr. Spragg also had a telephone talk with Miss Alma Dicker, whom many members of the R.I.B.A. will recall when she was a valued

member of the staff of the Building Centre in London.

In the morning there was a useful and fruitful private meeting with the Council of R.A.I.A. when problems relating to architectural education and the closer association of the overseas Allied Societies were discussed, enabling the visitors to understand more clearly the set-up between the R.A.I.A. and the State examining bodies and registration boards, and the Council to get a clearer picture of what the R.I.B.A. had in mind.

Mr. Cross gave another session to the Australian Broadcasting Corporation and then he and Mr. Spragg were the guests of Sir Arthur Stephenson at lunch. Afterwards a visit was paid to the premises of the General Motors Corporation, not yet completed, which were designed by Stephenson and Turner.

In the evening Mr. Cross and Mr. Spragg were the guests of honour at a dinner party at the Menzies Hotel, given by Sir Arthur Stephenson and attended by many of the leading Australian architects and other distinguished Melbourne citizens. Mr. John Scarborough [F] acted as chairman. Speeches were made by Sir Arthur, Mr. W. O. McCutcheon, Mr. Eric Hughes and Sir Daryl Lindsay.

During the morning of 5 April papers were read by Mr. B. Newton-John and Mr. Cross, who spoke of the revolutionary changes taking place in building ideas and methods. The conclusion of the morning meetings marked the official end of the Convention, and then Mr. John Islip took Mr. Cross and Mr. Spragg to the School of Architecture at Melbourne University, where the work of the School was inspected. A dinner and dance at the Hotel Australia ended the day.

6 April. A pleasant and restful day was spent at the home of Mr. and Mrs. Race Godfrey in Toorak.

On the morning of 7 April Sir Arthur Stephenson called to say good-bye and later Mr. Godfrey took the visitors to the airport for their flight to Hobart, Tasmania.

Hobart. (7 April.)

The visitors were welcomed by Mr. A. W. Voss, President of the Tasmanian Chapter of the R.A.I.A., and Mr. David Wilson, who took them to the Wrest Point Hotel.

Early on 8 April Mr. Voss and Mr. Lighton, a Vice-President of the Tasmanian Chapter, took Mr. Cross and Mr. Spragg for a drive through marvellous scenery to see some of the hydro-electric schemes for providing power to the whole of Tasmania, including the stations at Tarraleah and Tungatinah, the Clark dam and the Butler's Gorge station. The two stations under construction at Wayatinah were seen on the return journey.

The morning of 9 April was spent at the School of Architecture at Hobart Technical College, where talks were had with the Head of the School, Mr. S. W. T. Blythe [A], the Principal of the College, and other members of the staff. After lunch the visitors were taken by Mr. Blythe

and Mr. L. Parkes to the top of Mount Wellington, from which magnificent views were seen.

In the evening the Tasmanian Chapter gave a dinner at the Wrest Point Hotel at which some 30 members were present, Mr. Voss being in the chair. Speeches were made by Mr. Voss, Mr. B. L. Dechaîneux [F], the City Architect, and by Mr. Cross.

10 April. In the morning Mr. Voss took the visitors to be received by the Governor, Sir Ronald Cross, at Government House, and afterwards by the Premier, Mr. Cosgrove. After a lunch given by Mr. David Wilson at the Tasmanian Club the new office building of the Electrolytic Zinc Company of Australasia was inspected.

In the afternoon the Deputy Lord Mayor held a civic reception at the City Hall, attended by the Town Clerk and many of the aldermen, councillors and leading architects. Speeches of welcome were made by the Deputy Lord Mayor and Mr. Jackson, Leader of the Parliamentary Opposition. Mr. Cross and Mr. Spragg replied.

Early on 11 April Mr. Wilson and Mr. Voss saw the visitors off at the airport. Changing planes at Melbourne they were greeted there again by Mr. Godfrey, Mr. Harry Winbush, Mr. Raymond Beig and Mr. John Islip. After calling at Sydney Mr. Cross and Mr. Spragg reached Brisbane.

Brisbane (11 April.)

At Brisbane the travellers were greeted by Mr. C. W. T. Fulton [F] and Mr. T. H. A. Cross, respectively President and Hon. Secretary of the Queensland Chapter of the R.A.I.A. In the evening the visitors, and members of the Council of the Chapter and their wives, were guests at the house of Mr. and Mrs. Fulton.

The next day (12 April) the first engagement, in Mr. Fulton's company, was to call on Chief Justice Mansfield, acting as Administrator during the illness of the Governor, Sir John Laverack. Then the Technical College was visited, where the Principal was met and some of the work of the School of Architecture was shown by Mr. Fulton. Afterwards the visitors went to the University at St. Lucia, where Professor R. P. Cummings [F] awaited them. Lunch was taken at the Bellevue Hotel, as guests of the Principal of the Technical College.

After Mr. Cross had recorded another broadcast by the A.B.C. he and Mr. Spragg, in Mr. Fulton's company, were received by the Lord Mayor at the City Hall and then were the guests of honour at a reception given by him, which was attended by members of the City Council, officers of the City, and many Brisbane architects.

In the evening the Brisbane Chapter held a dinner at Lennon's Hotel, where Mr. Cross addressed the company. A vote of thanks was moved by Senator Annabelle Rankin and seconded by Senator the Hon. C. G. McCallie, Minister for Public Works.

On the next day (13 April) the visitors,

with Mr. and Mrs. Fulton and a few leading members of the Chapter and their wives, boarded Mr. Theo Thynne's fine cruiser and cruised down the River Brisbane to Moreton Bay. The party disembarked to inspect the ruins of the former penal settlement on St. Helena island. In the evening Mr. Cross and Mr. Spragg had further informal and useful discussions with Mr. Fulton and Mr. E. J. A. Weller [F] on registration, education and examinations as affecting Great Britain and Australia.

14 April. Mr. Fulton drove the visitors to the airport where Professor Cummings had also come to wish them *bon voyage*.

Sydney

Sydney was reached soon after noon (14 April), where the visitors were greeted by Professor H. Ingham Ashworth [F], President of the New South Wales Chapter, R.A.I.A., and the Secretary, Mr. Greig, who took them to lunch at the Hotel Australia. After lunch the visitors were shown the site for the new Opera House. Professor Ashworth then entertained Mr. Cross at his house on the north side of Sydney and Mr. Greig took charge of Mr. Spragg.

The morning of 15 April began with a Press interview and then, in company with Professor Ashworth and Mr. Greig, the visitors were received at Government House by the Governor, Sir John Northcote. After lunch with Mr. Greig and Mr. Farrington, Vice-President of the New South Wales Chapter, the visitors went to the School of Architecture and Building at the University of Technology, where they were shown over the school by Professor F. E. Towndrow [F] and Mr. Woolard, and were introduced to other members of the staff.

In the evening Mr. Cross and Mr. Spragg were the guests of Professor and Mrs. Towndrow and Professor Denis Winston [F] and Mrs. Winston, Dr. and Mrs. Kett being also of the party.

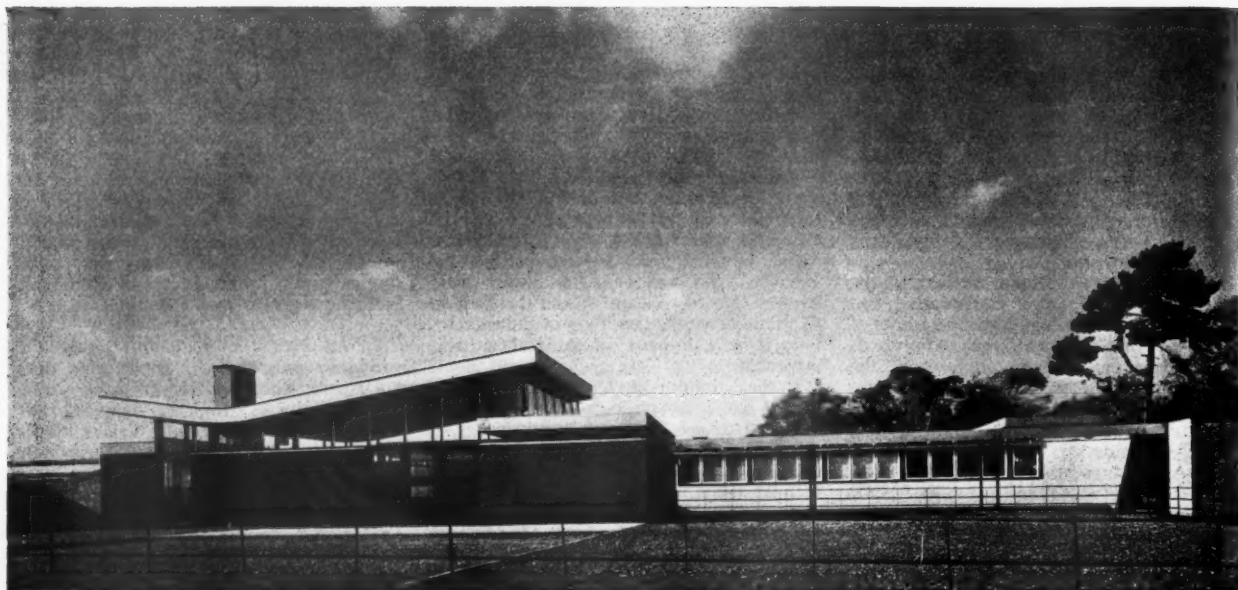
(To be continued)



I.U.A. Notes

IVth International Conference of Architectural Students. A paragraph appeared in the I.U.A. Notes of last January's issue of the JOURNAL, announcing a forthcoming International Conference of Architectural Students. Notice has now been received that the Conference is to be held from 7 to 10 August 1957 in Copenhagen. The address of the organising committee from whom more information can be obtained is:—

The IVth International Conference of Architectural Students, 19 Sankt Peters Straede, Copenhagen K, Denmark.



New Admission Unit. Fair Mile Hospital, near Wallingford, Berkshire

Architects: Powell and Moya [FF]

THIS BUILDING was awarded the R.I.B.A. Architecture Bronze Medal in the area of the Berks, Bucks and Oxon Architectural Association for the four-year period ending 31 December 1956.

The Fair Mile Hospital, near Wallingford, is a mental hospital for about 950 patients and was built in the mid-19th century. A new Admission Unit (or Admission Hospital) was required to which all new patients, a large proportion of whom are voluntary, would first go (this Admission Hospital belongs to the first group of units in the country to be sanctioned since the war by the Ministry of Health, and is the second to be completed).

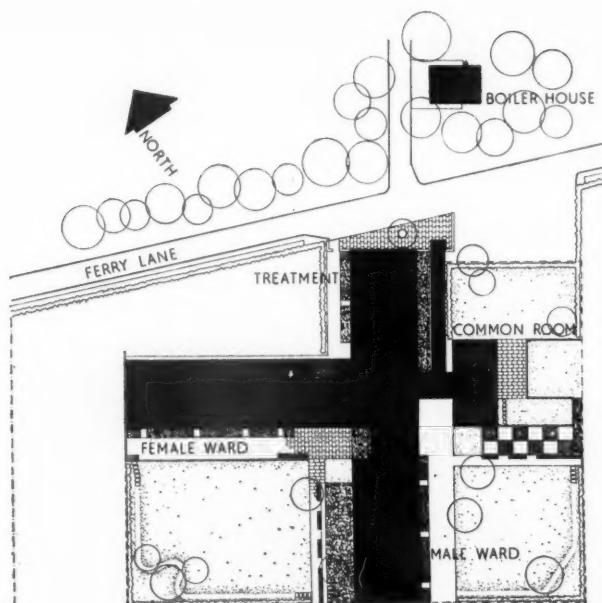
Two new wards, isolated one from another and with separate gardens, were required for newly admitted patients; a 30-bed ward for females and a 23-bed ward for males. A treatment wing would include rooms for insulin and electro-convulsive treatment, and this wing would also be used for the ever-increasing number of out-patients requiring treatment. A main common room would be used by both sexes. The average stay of patients is six to eight weeks and at the end of the stay the majority are discharged. Only a minority would be received into the main building as longer term patients.

The Site. The southern boundary of the main hospital's grounds is thickly wooded and bordered by a small country lane which leads from the main Reading-Wallingford road to the River Thames about a quarter

of a mile away. On the other side of this public road is a large field, part of which (about 1½ acres) was reserved for the new Admission Unit. Alongside, future convalescent blocks may later be built. This site slopes gently from north-west to south-east. There are fine open views to the east and south and west. The Western Region main line trains to Bristol can be seen in the distance and also the superstructures of the boats travelling on the Thames. The trees to the north screen the existing

hospital from view. A hedge runs along the north boundary but there are no trees on the site itself.

Design. The aim has been to design a building which is not only efficient but which has a pleasant and cheerful atmosphere—not normally associated with mental institutions. Advantage has been taken of the relaxation of certain design requirements (e.g. previously panes of glass exceeding 15 in. by 12 in. were not allowed)



and the only noticeably different feature from other types of buildings constructed today is that the windows cannot open more than 5 in. in their lower lights and 7 in. in their higher lights.

The building divides itself naturally into four wings—the male ward, the female ward, the treatment wing and the common room. One-storey construction has been chosen as it enables the four wings to be on the same level and to open out on to terraces and gardens. The clerestories and roof lights, possible in a one-storey building, have allowed for compact planning with short corridors, and without the disadvantages of bad lighting and ventilation. By varying roof levels, rooms need not all be of the same height (larger rooms are in fact 10 ft. high, smaller rooms only 7 ft. 6 in.).

The cruciform plan helps to give an intimate, small-scale atmosphere to the building, as only parts of it can be seen at a time. It also divides the open space into semi-enclosed gardens, screened one from another.

The treatment wing has been designed so that its rooms have a pleasant aspect, but are not overlooked by other parts of the building. Clear glass has been used in the windows, but where sill levels are low, venetian blinds are provided. In other rooms of this wing sill levels are high so that patients lying on beds or couches have a view of trees and sky without being overlooked.

The boiler-house is a separate building and is sited on the other side of the road amongst the trees. Its 40-ft. high chimney is not visible from the new building.

Cost: The building (15,261 sq. ft. internally)—£51,922. External works, including the boiler-house—£9,463. The assistant architects were Robert Henley [4] and Derek Stow [4]. The Architect to the Oxford Regional Hospitals Board is W. J. Jobson [4].

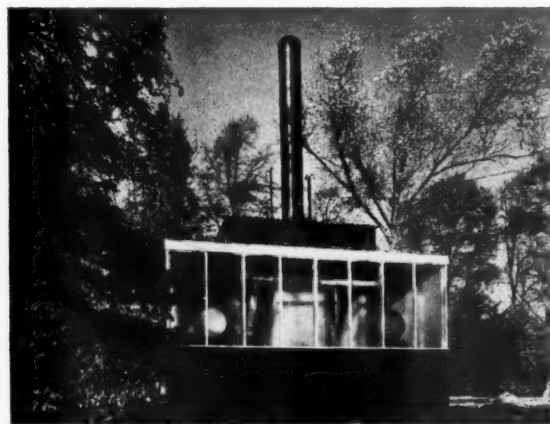
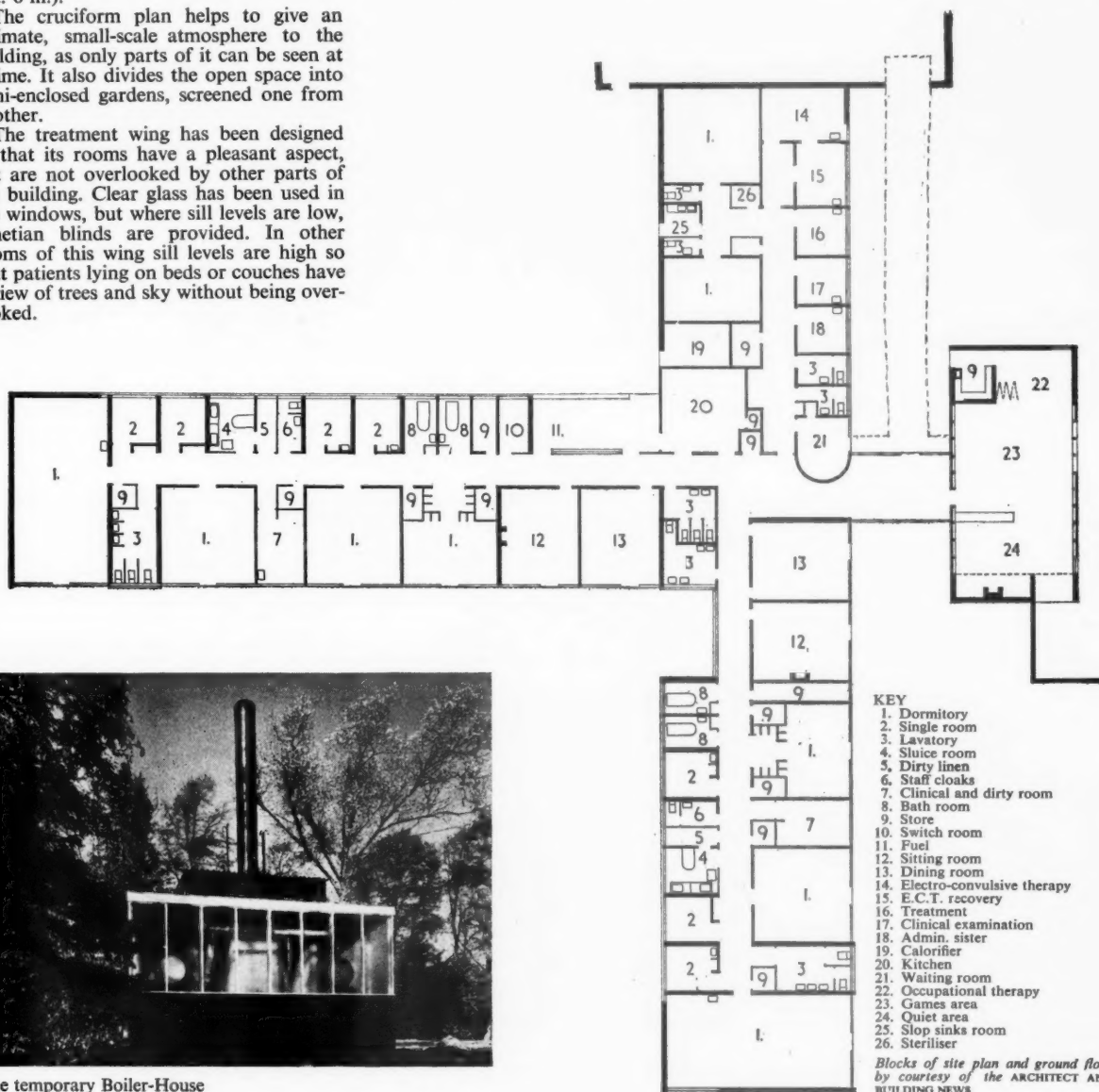
The Admission Unit has been fully illustrated in the technical journals

CONSTRUCTION NOTES

Walls. The loads are taken on the internal cross walls which are normally of 4½ in. common brickwork, but are 9 in. thick

where additional sound insulation is required. External walls are of cavity construction, each leaf consisting of lightweight expanded clay blocks. The thermal insulation value of these walls, inclusive of their finishes, is $U = 0.12$. The common room is of timber frame construction.

Roof. A patented form of roof construction consisting of composite plywood and softwood troughed units in 20 ft. and 10 ft. spans (24 ft. spans in the case of the common room). On top ½ in. asbestos cement sheets, 1 in. insulation board, 3-ply patent built-up roofing felt, grey granite chipping finish. The edge flashings are carried down to form fascias and are of ribbed aluminium sheeting. U value is 0.15.



The temporary Boiler-House



Partitions. $\frac{3}{4}$ in. plasterboard core with stretched galvanised wires and $\frac{5}{8}$ in. plaster each side, forming a rigid reinforced system of walling.

Windows. Hardwood frames generally but opening lights are in galvanised steel (painted) of top-hung projecting type. Sills are slate or aluminium. The apron panels below ward windows are glazed with $\frac{1}{4}$ in. Georgian wired roughcast glass. To the back of the frames are fixed coloured sheets of stove enamelled asbestos-cement. Internal lining is of $\frac{1}{4}$ in. plywood, painted.

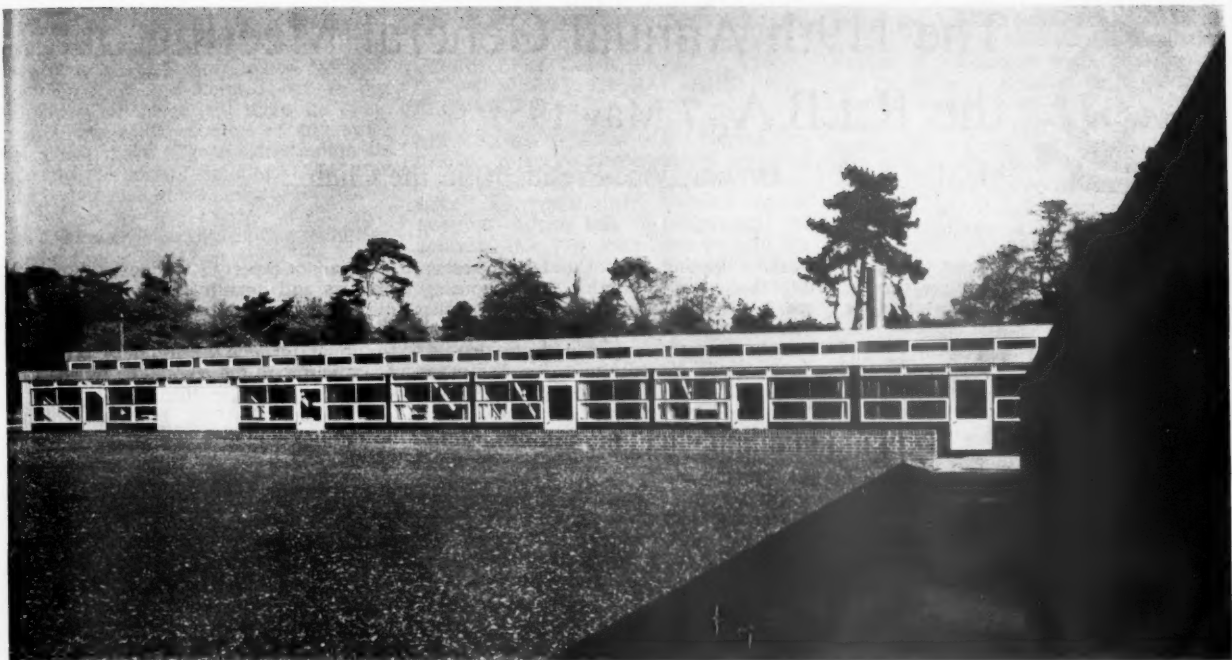
Finishes. $\frac{3}{4}$ in. rendering with spatterdash finish. Certain screen walls are London stock facing bricks. The hardwood window frames are African mahogany, oiled. Metal frames are painted. Chimneys are painted with chlorinated rubber-based paint. Retaining walls are in blue engineering brick.

Colour Scheme. Externally, spatterdash finish in dark grey, white and pink. Paintwork generally black and white. External doors to wards: mustard yellow. Apron panels to ward windows: dark blue and dark green. Internally, varying light shades on walls with grey, yellow and pale blue predominating. Brighter colours are used on some doors and fanlight panels. Wood framing, where not hardwood, generally white. Ward ceilings: pale blue. Other ceilings: white. Curved wall in entrance hall: tomato red. Radiators, etc.: dark mushroom grey.

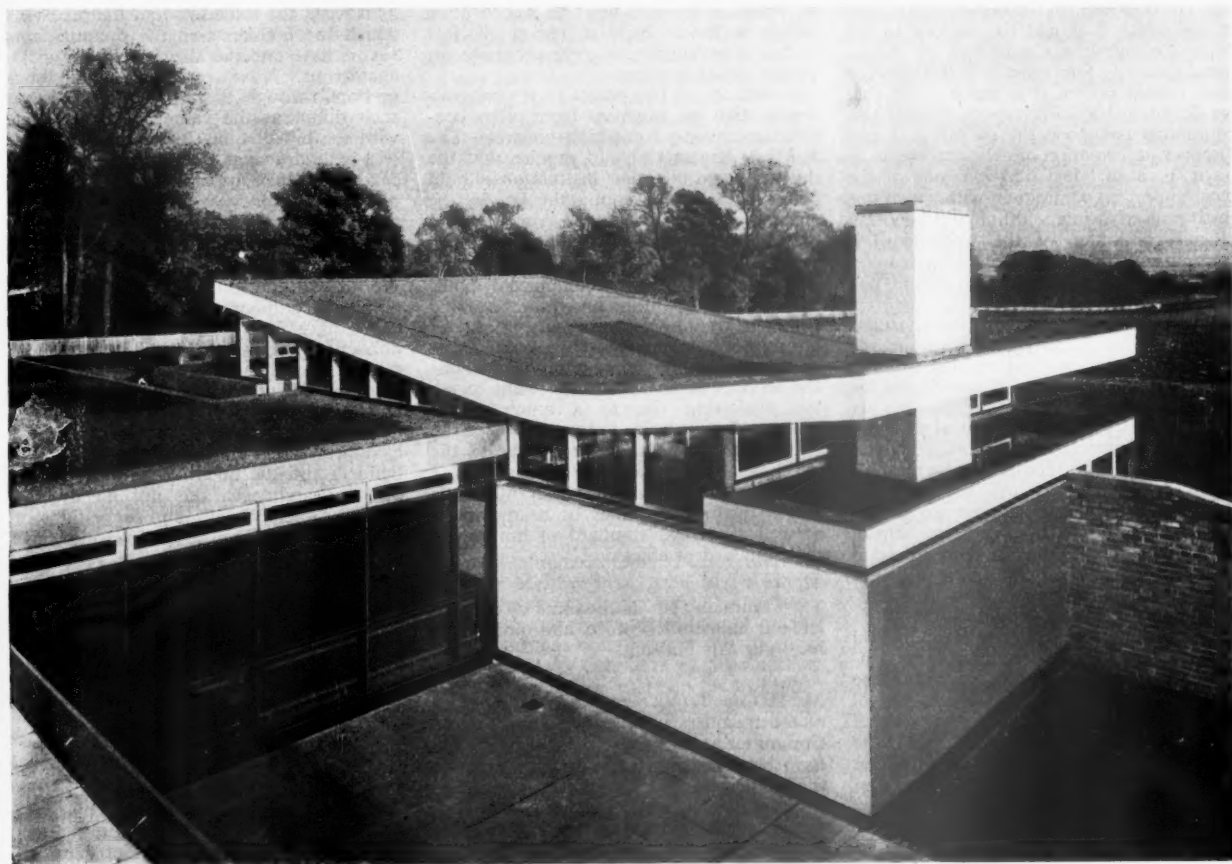
The covered way from the drive to the Entrance Hall. On the right, the Common Room. On the left, the Treatment Block



Interior of the Common Room. The hardwood mullions of the clerestory are at 3ft. 6 in. centres and support the roof. The ceiling is in softwood boarding, V-jointed. Wall panelling is sycamore clear varnished. The rainwater down pipe can be seen on the right



Above: The Female Ward wing. Below: The Common Room





The 119th Annual General Meeting of the R.I.B.A. 7 May 1957

Mr. Leonard C. Howitt, Vice-President, in the Chair

The Chairman: I have to present the Report of the Council and Committees for the official year 1956-57 and to move that the Report be received.

The Chairmen or other representatives of all the committees whose reports are appended to the Council's Report have been asked to attend this meeting so as to be in a position to answer any questions which may arise in connection with these reports.

The Hon. Secretary, Professor Basil Spence [F] seconded the motion.

The Chairman: The Report is now open for discussion, and I propose to take it page by page.

JOINT CONSULTATIVE COMMITTEE OF ARCHITECTS, QUANTITY SURVEYORS AND BUILDERS

Mr. H. Moncrieff [F]: There are one or two points which I should like to put to the Joint Consultative Committee of Architects, Quantity Surveyors and Builders for their consideration. It is unfortunate that we do not get a fuller report of what this committee has done or, so far as I can discover, information on who represents us on it, because I feel that it is one of the most important committees with which this Institute is associated, although it is not an official committee of the Institute. The committee should be congratulated on their excellent pamphlet 'Plan before you Build'.

We need far more meetings and consultations with the quantity surveyors and the contractors, because I believe that we need to review the standard of the work and the kind of work which we are doing. We are being judged by the public, or at any rate by those members of the public who give any consideration to the matter, by business standards, and not just the aesthetic standards by which I suppose we should like to be considered. We need the help of these other people, therefore, to see what we can do about it. There is a great deal of talk at various meetings about these matters, and pious phrases are used about consultation, team work, pre-planning and so on, but we need something more concrete, and that is where this joint committee can help.

We want some real sanctions by which the Royal Institute can deal with the inefficient architect. We must face the fact that there is a great deal of inefficiency in our profession. We must give a first-class service and design and plan before the quantity surveyor and the builder get to

work. A housing director told me the other day that when budgeting for a housing scheme he allows the same fees for the quantity surveyor as for the architect, because he finds from experience that by the time the quantity surveyor has measured up the deviations his fees are as high as those of the architect. That is an appalling state of affairs.

Quantity surveyors tell me that they have frequently to prepare bills from rough $\frac{1}{4}$ -scales and a few notes. If that is the standard of service which is being given, something should be done about it. I have talked to building contractors recently about the service which we give, and I recommend every architect to do that. It is necessary to approach the contractor with some care, because many of them feel strongly about this, and some feel that architects and efficiency simply do not go together. The contractor will say that what he wants to know is what he has to build before he has to build it. The simple fact is that large numbers of contractors are not in that position today.

I want to put two points to the committee, so that we can pass from pious pronouncements to something concrete. The R.I.B.A. contract should require that the drawings and all other instructions should be handed to the contractor before the starting date named in the contract, and that any variations be priced at rates above the bill rates.

We have nothing to be complacent about. Contractors are more and more offering complete buildings to clients, both in housing and in industrial work, and vast numbers of buildings are going up without the services of an architect. I want to see the profession rise to a much higher position than it holds today and to see the architect independent and respected by the building industry and by the public. I believe that that can come about only if the Royal Institute demands of its members, as well as a high standard of honesty, a real standard of efficiency.

The Chairman: No doubt some of us have left our halos in the office, and more of us have our ears burning!

Mr. H. Conolly (Vice-President): The names of the members of the Joint Consultative Committee are printed in the Kalendar. We have been hearing for a long time about the inefficiency of the architect and of the troubles which exist, including the provision of insufficient drawings and information. We are fully aware of these things.

You cannot expect us, in consultation with builders and quantity surveyors, to work miracles overnight, but I can say on behalf of the committee that if any member cares to submit, through the Secretary, proposals or criticisms to the committee, we shall be very glad to consider them.

These consultations, both at national and at regional level, are taking place all over the country. Our first job was to set up regional machinery, which is now operating very fully, by which architects, quantity surveyors and builders could meet to discuss their common problems. There is one association which is constantly bombarding us with questions. The result is that within the next ten days we are having a meeting here of the Joint Consultative Committee at national level with all the regional chairmen. From time to time we consult the Practice Committee in order to pass on to the R.I.B.A. officially, as it were, the criticisms and the problems which the builders and the quantity surveyors have and the allegations they make against us. We have made certain suggestions through the R.I.B.A. JOURNAL on such things as the value of sending out, with the bill of quantities, a complete set of $\frac{1}{4}$ -scale drawings, so that the contractor can see very clearly what the job is and can plan his machinery and layout as well as price the items in the bill, and we have dealt with a number of questions such as retention monies and forms of contract. We are working on a form of tender for nominated sub-contractors.

We have not, perhaps, given as much publicity to our work as might be wished, but very much of the work which we do involves dealing with two other institutions, and we cannot beat the drum alone in the market-place. I can assure you that we have been left in no doubt about what the builders and the quantity surveyors think of some architects, but not all by any means. As I have said, any suggestions or complaints which are sent to us will receive very careful consideration.

The Chairman: We all know what we ought to do, but what we ought to do is not always in practice possible. We hope that the day when it is possible will not be long delayed.

COST RESEARCH COMMITTEE

Mr. Percy V. Burnett [F]: Would it be possible for the terms of reference of the Cost Research Committee to be enlarged? They seem to be confined to those matters on which architects can contribute to

economic building, but why not all aspects of the subject? Reference is made in this paragraph of the Report to the Norwich Conference. It was pointed out at the Norwich Conference that there are other aspects, out of the control of architects, which can make a great contribution to reducing the cost of building. Could not they be included in the terms of reference?

The Chairman: You suggest that architects should discuss questions which are out of their control?

Mr. Burnett: No, all matters which contribute to economical building.

The Chairman: I am reminded that the Council at their meeting today approved a memorandum from this committee inviting members to send in any helpful information which might be of value to the committee. Perhaps you will make your suggestion in response to that.

HOSPITALS COMMITTEE

Mr. D. H. McMorran [F]: Is there any good reason for the personnel of the Hospitals Committee not being given in the Report?

The Deputy Secretary: There is no very good reason. The reason, such as it is, is that the committee consists partly of members in private practice but largely of representatives of government departments and regional hospital boards, and it has about 30 members. The names are given on page 15 of the current Kalender.

The Chairman: You will observe from the last paragraph under this heading that the committee will be handing over their work to the Science Committee in July.

PRESIDENT'S TOUR

Mr. R. D. Butterell [A]: Under the heading of Public Relations perhaps I may be allowed to say that I have recently read a cutting from an Australian newspaper about a statement that the President is reported to have made when in that country. It has caused some concern to me and to some of my friends, because we feel the President is representing us, the members of the R.I.B.A., and presumably what he says we should believe in too.

Mr. Butterell then read from a newspaper cutting in which reference was made to contemporary domestic architecture being 'hard and hideous' and modern office blocks being unsuitably designed.

The Chairman: Mr. Spragg saw that report and wrote to the Deputy Secretary from Melbourne to say that the President had been misrepresented. Mr. Spragg said he had been present at the interview given to the reporters, and the President had said nothing of the sort.

Mr. Butterell: Thank you very much. I wished to bring the matter to the notice of the meeting because others who read it might gain a wrong impression.

SALARIED AND OFFICIAL ARCHITECTS' COMMITTEE AND AD HOC COMMITTEE ON REPRESENTATION OF MEMBERS IN SALARIED EMPLOYMENT

Mr. Thurston Williams [A]: I should like to make a few comments on the report of the Salaried and Official Architects' Committee, because I think it raises certain questions which this meeting ought to consider. It is two years since we held the memorable Annual General Meeting which discussed this subject. Looking round tonight, it might be thought that the feelings aroused by this topic had died away, but that is not my feeling nor that of the colleagues with whom I work. That Annual General Meeting had as one of its results the setting up of the Ad Hoc Committee, and perhaps it might be in order to discuss the work of that committee also, since the two issues seem to be related.

There is no need to deny that most of those who were in this hall two years ago were salaried assistant members of the Institute, and I wish to look at the results which have come from the Ad Hoc Committee since that time through the eyes of a salaried assistant. I shall start by referring to what I think are the positive actions which the Council and its committees have taken since that time.

The first and primary one is the setting up of the Ad Hoc Committee itself. Probably for the first time we have had a committee which deliberately went out of its way to choose as its members salaried assistants. As a result, we have seen the appointment of a Secretary for Professional Relations, and we have also for the first time had an item in our budget for research work. We now understand from Mr. Sheppard's report that there is to be an investigation into the work of our profession, involving the issue of a questionnaire to which we shall be asked to reply. I hope that our members will take advantage of this questionnaire to provide the Institute with the information which it clearly needs. These are very necessary steps to improve the status and salaries of our members.

I am sufficiently used to committee work to appreciate that any committee report resembles an iceberg in one respect. Anything that appears in the report represents only a small percentage of the amount of work which has been done. If, therefore, I am critical of the work of these committees, it is on that understanding. I think, Sir, that you and Mr. Sheppard, and Mr. Ricketts during the short time for which he has been appointed, are to be congratulated on the work which has been done, but the salaried assistant is very conscious of his situation at the present time, more so than of what his situation may be several years hence, when the results of the work of these committees are seen.

It is not possible for all salaried members to have the opportunities which I have had of putting my point of view to the Ad Hoc Committee and to be one of the representatives of my trade union to appear

before the Salaried and Official Architects' Committee and to have the opportunity of discussing this subject with the Secretary for Professional Relations. The average member can gain an idea of what the Institute is doing only from the reports which appear from time to time, and it is therefore natural that he should notice certain negative aspects of the work which has been carried out during the last two years. It is on that negative side that I wish to speak.

The assistant in private practice must be disappointed that, so far as he knows, no action has been taken to take his particular interests immediately into consideration. I feel that there is a very strong case for the Council to set up some form of Whitley machinery whereby the assistant in private practice can be directly represented across the table in dealing with principals and employers generally. There is also a strong case for the Council initiating some form of pension scheme for assistants in private practice. Those of us who work in local government or for other public authorities are committed to some form of superannuation scheme, and it is difficult after a period of time, when your salary has been bound up with a superannuation scheme, to change your form of employment and go into private practice as an assistant, because you immediately lose all the benefits of the superannuation scheme. If we want the maximum degree of manoeuvrability for architects between private and official practice, some form of pension scheme for those in private practice seems essential.

A second cause for disappointment is that no action has been taken to clarify the position of the trade unions representing architects. There have been, I know, interviews between the Salaried and Official Architects' Committee and different unions, but they do not seem to have come to anything. I feel that in this field there is a great deal more that could be done.

Above all, the salaried assistant is conscious that in these last two years his salary, if it has not remained as it was before, has if anything deteriorated. I think it can be said that the salaries of our assistant members are a scandal to the profession. At the present time our colleagues in the medical profession are carrying on a public campaign because they believe that their salary of £2,000 is not sufficient. It seems to me that we are lagging behind when the average salaried architect has a salary of only half the amount which his medical colleague receives. I do not believe that the average doctor is more important or efficient or beneficial to the community than the average architect.

Mr. Campbell, in a recent address to the Association of Building Technicians, gave it as his view that the target for the average architect should be that £2,000 a year from which the doctor is now trying so hard to get away. I should like to put a direct question to the Council and its committees: is that an objective which they would consider it possible to support? I think that this is important. We should decide what

our objective is for our members, and state it and work towards it.

There are other matters on which I think that the Council can take action in the coming year. I should like to see a clear definition of the difference in duties between the Ad Hoc Committee and the Salaried and Official Architects' Committee. Their duties seem to overlap. They could, by working more closely together, carry out more work. I should like to know why on the Salaried and Official Architects' Committee only one trade union is represented. Surely this should be one of the means of bringing together the interests of our members in the various trades unions within one organisation, under the chairmanship and leadership of the Royal Institute?

I am not happy about the ways in which our members on these committees are chosen. They are clearly hard-working and worthy people, but I always prefer election to selection. It is difficult to have complete confidence in members whom one does not know.

I have tried to indicate the lines on which I and other salaried assistants are thinking at the present time. We should look not only at the positive aspects of the Council's work during the last two years but also at what it has failed to do, because unless we are aware of these points we cannot improve the position in the future.

The Chairman: I am Chairman of the Salaried and Official Architects' Committee, but I think that most of the questions which have been raised are for Mr. Sheppard, as Chairman of the Ad Hoc Committee, to deal with. There are one or two, however, which concern my committee.

The first deals with the trade unions. We have, of course, had meetings with them, and we have agreed to continue the active co-operation which we have always had. When they want further information the provision of it is one of the jobs of the Ad Hoc Committee.

A salary of £2,000 a year is not the objective of the R.I.B.A. but of another body. It has never been before the R.I.B.A. Council, and the first thing that the Council would want to know is whether or not it is an economically practicable objective.

The clarification of the duties of the two committees is under active consideration, and I expect a decision will be made shortly. I will ask Mr. Richard Sheppard, the Chairman of the Ad Hoc Committee, to deal with the other points.

Mr. Richard Sheppard [F]: I was glad to hear Mr. Thurston Williams's approval of what we have done so far. He knows very well what we are doing, so that, having mentioned four points, he could have gone on to mention the rest. He picked out two things in particular, the first being the position of the assistant in private practice. We have had the appointment of Mr. Ricketts, and an addition is shortly to be made to the staff, to enable us to deal with

the points which Mr. Thurston Williams mentioned and others, but we cannot tackle them all at once.

For the last year we have been dealing with what we regard as the nodal point, the salaries and conditions of assistants in public offices of anything from five to fifteen years' experience. We felt, from the information which we have gathered from visiting various offices and in other ways, that this was one of the matters on which we could most easily obtain information and be able to help, by that information, to improve the situation.

It is said that we ought to deal with assistants in private practice. I think that we should; but we have been working for a year and we still have not been able to get as far as we wished on this question of qualified assistants with from five to fifteen years' experience. I do not think that we shall do any good by striking out in all directions and taking in people in private practice as well. Mr. Williams made several assertions which I do not think are justified. We know from our own investigations of the discontent and very justifiable dissatisfaction which exists with the conditions of assistants in public authorities. We do not know of the existence of tremendous dissatisfaction with conditions in private practice; in spite of requests for information and the knowledge that the committee exists, we have had no evidence on that subject whatever. For the moment, we shall do well not to disperse our efforts.

I agree with what Mr. Williams said about superannuation and pensions. This is an investigation which we ought to carry out, to see whether or not some sort of joint pension scheme could be worked out for those in salaried positions in public and private practice. Such an investigation would require an economist-statistician to carry it out, and also the help of an actuary. It is obviously a very large subject indeed.

He also spoke about salaries generally and asked whether or not a salary of £2,000 was our objective. The answer is that we have no information in the Institute about the financial conditions of private practice. We are issuing a questionnaire to all members of the Institute to try to find out some of the basic conditions of practice. We do not know enough to say what sort of salary in relation to what sort of experience would be feasible for private practice. It is, I think, erroneous and misleading to establish a parallel between us and the doctors, because the doctors are very largely in a public service.

He referred to the representation of the unions. We made a general recommendation about that in our first report, which was taken up by the Salaried and Official Architects' Committee. It is, as he knows, a difficult and thorny problem. I do not think that any of us can claim to be sure, in the present state of our knowledge, that by recommending the Institute to organise some sort of union we should do ourselves any good, in the face of the embattled strength of N.A.L.G.O., and I.P.C.S. and other unions. We have to tread very carefully.

With the staff at our disposal and the pressure on our members, you cannot expect things to move more quickly. It will probably take two or three years before we get any results from the investigations which we are carrying out and can make positive recommendations.

The Chairman: I should like to ask Mr. Southgate, who is a member of both committees, to say a word.

Mr. F. G. Southgate [4]: I should like to amplify what Mr. Sheppard has said in connection with the liaison panel set up at the suggestion of the Ad Hoc Committee by the Salaried and Official Architects' Committee. Discussions have already taken place with the appropriate unions and it has been agreed that information which we can supply as it comes to hand and which will be useful to them in the presentation of their claims shall be given to them, and that they will communicate with us when they make a claim. One union, N.A.L.G.O., has already been in touch with us about a pending claim. This liaison panel will, I think, be most useful in enabling us to keep in close contact with the other associations.

I would emphasise the point which Mr. Sheppard has made, that the setting up of something of this sort, which is entirely new in the Institute, must take a long time to get going, because we are devoid of almost all the factual information which we need. We have general information, but not the detailed, factual information which is necessary in order to present a concrete case for consideration by the people who are going to pay.

The Chairman: It should be added that the Salaried and Official Architects' Committee remains in being and is dealing with the day-to-day matters, so that nothing is being neglected.

Mr. G. B. Oddie [4]: On the question of the Ad Hoc Committee, I move in different circles from Mr. Thurston Williams, but there is one point which he made which I would emphasise from my own observation in the circles in which I move, and that is that the feeling of unrest, which was expressed so forcibly two years ago, is still there, and it will not be for much longer that patience will be extended to the R.I.B.A. That is about the extent of my agreement with Mr. Thurston Williams. It should be added very forcibly that those who have followed these proceedings are extremely grateful for the hard work which has been put in by the members of these two committees. They have done an enormous amount of work in their spare time, and, whether selected or elected, I cannot imagine that we could have a more crackerjack bunch of chaps. This makes me wonder whether, as it was two years ago that the rumpus took place and only five months ago that Mr. Ricketts was appointed, the Ad Hoc Committee has really had the full backing of the Council of the Institute which we might have

expected after the meeting two years ago. I should be glad to have the assurance that it has the full backing of the Council, and that that will continue.

The Chairman: I feel sure that Mr. Sheppard will give that assurance, that the Council have given their full backing to all the proposals of the Ad Hoc Committee.

Mr. Richard Sheppard [F]: We have had the Council solidly behind us.

The Chairman: With regard to the appointment of the Secretary for Professional Relations, this is a very important appointment, and we had to wait a considerable time to get the right man.

Miss Nadine Beddington [A]: As a member of the Ad Hoc Committee who has always been particularly interested in the position of the private salaried assistant, I should like to add to what the Chairman of the committee has said. We have not forgotten the private member, and a great deal of preliminary work and research is going on and a certain amount of material is available, but until we get more it is not possible to apply it. The salaried assistant in private practice has no association to express his views and it is difficult to find out about him or to get representatives who can speak for him. But he has not been forgotten, and we are conscious that this is a very difficult and special problem.

Mr. Richard Sheppard [F]: It has been suggested that some form of Whitley Council would be a good thing. I think it would; but we have to remember that we are dealing with all types and conditions of practice up and down the country, from the man with two or three people in his office to the man with a hundred or more. It is almost impossible, on the information which we have at present, to lay down any guidance or points for a Whitley Council. Until the facts have been collected and analysed there is very little that we can do. It would be absurd to do anything on the basis of insufficient information.

Mr. Hugh Morris [A]: I wish to underline Mr. Oddie's remarks about the urgency of this question. I qualified seven years ago, and after two years' National Service started off on a salary which I need not mention and which has gone up step by step over the last five years. If I did not look at the cost of living index I might think that I was making progress, but taking account of the increased cost of living I find that I am now getting almost exactly what I received when I qualified. I am not making any progress, but simply quietly getting older. This is discouraging and makes us who are in this position feel that something has to be done as quickly as possible. I am sure that this situation is not peculiar to myself.

With regard to the liaison panel, I do not know what came out of the meetings with the various negotiating bodies which have

architects in membership. Probably it was very useful, but it might be worth investigating the possibility of this Institute not only calling together the representatives of these organisations (who in the case of N.A.L.G.O., for example, are probably not architects) but convening meetings of members of the Institute who are also members of these negotiating bodies and trade unions, not union by union but by fields of employment—local government, Civil Service, private practice and so on. I think that this would lead to useful discussion; people with common problems would come together and see how those problems presented themselves in different places. Out of that might come something useful to the secretariat, the Salaried and Official Architects' Committee and the Ad Hoc Committee.

We have seen the formidable programme of investigation of the Ad Hoc Committee. I am sure that it is valuable and I do not wish to disparage it, but I do not think it will solve the problem of discovering what we are worth. I do not think that that is ascertainable; I believe that what determines what you get is not simply what you are worth in any way that can be analysed as a result of the sort of investigation which is being conducted. We have to find some way to strengthen our negotiating power, and this is the core of the problem, rather than a tremendous piece of statistics.

Mr. H. J. Gordon [A]: I do not know how much has been said about the Ad Hoc Committee, because I am an employed architect, and these meetings start too early for an employed architect; I suggest that in future they should start later, so that members in my position can attend. I want to emphasise the fact that although a programme for the Ad Hoc Committee has been published, it is most important that there should not be a division between architect assistants in private practice and architect assistants in local authorities. In the architectural press continual reference is made to these two branches of architecture, but in my view there are not two branches. Architecture remains architecture whether it is done by a private architect or by a county architect, and the position of an assistant is exactly the same whether he works in a private or in a public office. So far as numbers go, in a small borough office there will be only a small number of assistants, while in a county architect's office there will be a large number, so that even in respect of the numbers employed there should be no difference in an inquiry into assistants in private and in public offices.

I suggest that the Ad Hoc Committee should stick to the programme as outlined in the Chairman's Statement published in the April JOURNAL, but give more emphasis to private practice.

The Chairman: We all agree that the unity of the profession is paramount, and the fact that we are architects is more important than how we are paid, but we are dealing

with methods by which we can ensure that fair rates are paid.

Mr. Richard Sheppard [F]: I agree with the last speaker. With regard to Mr. Morris's remarks, we are not the only people who feel that the cost of living is rising more quickly than our salaries. That problem faces all professional people today; from the little investigation which we have been able to do, it is evident that it applies to lawyers, engineers and all the others. My personal opinion is that, in this age of pressure groups, the only kind of pressure group which will help is one composed of almost all the professions and not just one of them. The views of 18,000 architects will not weigh heavily when there are parallel professions—surveyors, engineers and so on—who think that they can carry out the work which we do. If in the Ad Hoc Committee we could start something going by all the professions which would exert pressure at the national level we might get somewhere. I should like this to be looked into, because it seems to me the only practical way of getting what we want.

Mr. G. B. Oddie [A]: Is there any hint of such co-operation from other professions? Do other professions feel the same way about this?

Mr. Richard Sheppard [F]: I have not noticed that they want to co-operate very much, but one of the ways to get co-operation is to offer it ourselves. You have read what is being done by the B.M.A. I believe that the other professions feel exactly what we feel, but they are doing less about it. I feel that something of the kind is bound to come about, but it may take time.

Mr. K. Allerton [A]: I am an architect in local government in the Midlands, and it is my experience that this Ad Hoc Committee and the work that it is doing and the report which it has published have lit a spark, and that more interest is being taken in this than in anything which has come up for a long time. We find that groups of architects at all levels are meeting and discussing these matters. In view of this, it is felt that the work of this committee is so important that, while it should not be rushed, any additional assistance which can be given to it to enable it to do its work faster than is possible at the moment would be welcome.

Mr. S. A. W. Johnson-Marshall [A]: I am a member of the Ad Hoc Committee, and I should like to refer to a point made by Mr. Morris and touched on by implication by the last speaker. Statistics are not being gathered to achieve ends in themselves but to give us a starting-point from which to do some work. Mr. Thurston Williams, for instance, suggested that the average salary of architects was about £1,000 a year. Unless we know that, we cannot go into battle. We do not know that. We do not know the number of firms of any given size,

We do not know the total number of architects who work in local authorities. The basis from which we have to shoot, when the time comes to shoot, is very shaky and will remain so until we have the replies to the questionnaire. It is therefore most important for all those who are interested in this subject to make sure that everything is done to get members to fill in this questionnaire.

Mr. G. A. Atkinson [4]: I was going to suggest what Mr. Sheppard has already put forward, that the professional bodies should co-operate. If the lead is not given by another profession, I think that the Ad Hoc Committee might give it. It would be a good thing for members of our profession if the leadership came from the architectural profession.

I understand that two years ago the question of the salary scale being brought under the control of the Institute was discussed, but that difficulties due to the constitution of the Institute appeared to make this impossible. I suggest that, despite the many difficulties, the Ad Hoc Committee should not lose sight of the possibility of getting some sort of grip on official salary scales.

One or two speakers have said that there is no distinction between the assistant in a private practice and the assistant in a public office. As one who has worked mainly in a public office, but who has had a limited experience in private practice, I do not agree. There is the big difference that the assistant in private practice is working for the profession under a professional man, whatever his position and salary. The assistant in a local government office is engaged by a committee or other body outside the profession, and he may only have the status of assistant, though a very responsible one, even when responsible for the architectural work in that organisation.

That is the basis of the first point which I want to make. I feel strongly that there should be in the profession some kind of code of conduct, some scale of charges and conditions of employment, applicable to men in salaried positions engaged by a local authority or other public body, a railway, bank or other commercial organisation, and that this should have some relation to the scale of fees and general conditions which apply to private practitioners. I feel that this concerns the interests of both sides. The position today encourages undercutting and encourages bodies to engage architects at a lower remuneration than they would get as principals, but higher than they would get as assistants in a private office. I have seen the costs worked out, and the impression given is that the work costs a great deal less than it would on the basis of fees. In some cases the bodies themselves express that opinion, and that is their reason for engaging staff.

That is not in the interests of the advancement of architecture, which is one of the purposes of this Institute as laid down in its Charter, and it is not in the interests of

private or of public architects. It gives no possibility of continuity of work in private firms, or of the best quality of work in public offices, and it tends in the long run to pull down the level of the profession.

I appreciate that there are many difficulties. There is the question of what the public will pay. We have to find out what the market will stand. We cannot fix the salary level at £2,000, because the public pay us, but at the same time we can do something to restrict the extent to which our services are available to the public.

My second point is linked with the first. Many salaried and official architects have inadequate status. There has been a recent instance of this in the papers. An authority proposed to build a technical school, or something of that kind, and there was a discussion about whether it should be done within the confines of the authority or by an outside firm. They decided to do it within the authority, and expressed confidence in the ability of their surveyor and the architect to do the job. The principal architect in that authority works under a surveyor. That does not seem to me to be a satisfactory status for an architect to have. It is bound up with the question of the cost of the job. I think that from that angle also the Ad Hoc Committee might look into the position to see whether or not something can be done to ensure that members of the profession have full managerial status where appropriate.

It presents many difficulties. In a local authority there is the town clerk, and the treasurer, who usually comes next in status, and then the borough or city engineer. They have statutory positions. Then we have the architect, who may be under the engineer and who has no statutory position, and the town planner, who is in the same position, and various other officials, who are well down the chain. The architect may in some cases receive instructions from a committee on what he should do, and, if they are in the form of a resolution to carry out certain work in a certain way, according to the town clerk that will be binding, although the architect may take a different view.

All these problems are linked. I realise that the Ad Hoc Committee has plenty to do, but this problem does need to be viewed against this very broad background. We no longer live in the 19th century, when the private architect was the man who counted, but in the 20th. Unless we, in common with other professions, look very closely at our position we shall be left behind.

The Chairman: All the points which you have raised come within the review which is being made by the Ad Hoc Committee.

Mr. G. Grenfell Baines [4]: I too am a member of the Ad Hoc Committee and an enthusiastic amateur statistician. I should like to deal with Mr. Thurston Williams's point of the salary of £2,000 a year. We run an office which has the avowed intention of sharing its income as fairly as

possible between the qualified members of the profession, and we have for two years run a costing section to see how much we can share between ourselves. We find that to guarantee a salary of £1,000 for the qualified architects, from the youngest graduate to the most experienced, we need an output of £40,000 of new building work a year. Our overheads, if we worked twice as hard and earned twice as much, would be somewhat reduced, but do those people who want £2,000 a year produce £60,000 to £80,000 of new building? If we have 13,000 Associates, it will mean producing about £1,000,000,000 of new work a year, which is two-thirds of the output of the whole industry. Are we handling two-thirds of the output of the whole industry? That is one of the things that we have to find out. I have gone into these figures to show how difficult it is to speak with any certainty or to bring this wishful thinking on to the two feet of reality without a good deal of full-time work.

On pensions we have had a good deal of experience. We have run a group pension scheme in some eight offices for ten years. The interest in that scheme has fluctuated amazingly, from tremendous interest at the start to no interest at all three or four years ago. Men were finding it helpful when they wanted to go, because they took out what they had put in and what we had put in, and it meant £200-£300 to help them on their way to the next job. In the last three years there has been a revival of interest and more people are now joining, but we have no evidence of a burning enthusiasm for pension schemes in our own office.

There is much to be said for thinking of ways and means by which pensions can be linked with local authority schemes, but, having consulted actuaries, we find that the conditions of local authority schemes are so different from anything that the private architect can get from an insurance company as to make them impossible of reconciliation. The most hopeful thing to do would be to persuade the Government to 'freeze' pension rates for three years, as is done when people go to the Colonies, so that a man can do three years in a private practice and then come back if he wants to and pick up his pension again.

£2,000 a year and pension schemes are pretty much 'Pie in the Sky', but if we carry on for another two or three years the profession may be strong enough to stand up and say what it ought to have. On the present output of the building industry it will mean more like 10 than 6 per cent for fees.

The Chairman: It is obvious that the Ad Hoc Committee have very valuable experience amongst their members.

Mr. William Allen [4]: To look at this solely as a question of the duties coming within the sphere of the Ad Hoc Committee or the secretariat is to take too limited a view. The negotiating power and the general income level of any profession depend in the end on the esteem in which it is held by the public and on its efficiency.

We cannot get away from those two things. One of the remarkable changes which have taken place in the Institute over the past few years is the enormously increased emphasis which has been put on every aspect of increasing the efficiency of the profession, but that cannot be done entirely from the Council and its committees; it must be done by the chaps in the offices delivering the goods. That is where the real power comes from in the end, and only after that can you marshal the advantages so gained in a negotiating body.

I have been connected for a long time with research. It is a sine qua non among scientists that if you want to get a powerful answer and a quick answer you must do fundamental work. Anybody who goes scratching about on ad hoc research—no reflection is intended on our committee!—and tries to take short cuts to quick results will be in the position of the whale who said about Jonah, 'I prefer small prophets and quick returns'. You can get little things that way, but you always miss the big ones. We must in this case do the fundamental work if we are to have the power to change the whole professional position, which is the only thing which will yield us anything but marginal returns.

The Chairman: I think that we have now dealt very fully with this question.

Mr. Thurston Williams [4]: May I make two points? I assure Mr. Sheppard and his Committee that they have my full support in what they are doing. I know that any sins of omission are not intentional.

I spoke of private practice, but I work for a public authority. It is because there is difficulty in learning the point of view of the assistant in private practice that I thought it necessary to raise the point. I believe that it is necessary for the Ad Hoc Committee as soon as possible to find the means by which assistants in private practice can express themselves.

With regard to the salary of £2,000, I am one of those who have to negotiate for architects, and I consider myself very lucky and them very fortunate when I gain them a £40 increase at one time; but we must have some target and be able to give our members some idea of what the Institute has in mind for them.

BUILDING LEGISLATION

Mr. Percy V. Burnett [F]: In the report of the Science Committee it is stated that the Council have appointed a new committee to deal with building legislation. Has this committee been set up?

The Deputy Secretary: It is holding its first meeting tomorrow afternoon.

FINANCE

Mr. Percy V. Burnett [F]: I wish to raise two questions to which I am sure that there are perfectly good answers, but it is not clear what those answers are. The first is on p. 18, the Income and Expenditure Account, where the cost of production and distribution of the JOURNAL is shown as

£11,625 odd for 1956 as against only £4,671 for the preceding year. The second concerns the 'Rough Estimate of Expenditure and Income' for 1957, from which I see that we hope to get £125,000 from subscriptions and arrears, as against only £85,000 odd last year and £81,000 the year before that. Why the difference?

The Hon. Treasurer: The increased cost of distributing the JOURNAL is due to the very heavy increase in postage rates for printed matter which was made during the year. The money has gone largely on that, though there have been some increases in the cost of paper and printing. The other change is due entirely to the increased subscriptions, which are now coming into full operation for the first time.

A.R.C.U.K.

Mr. C. B. Thompson [4]: Under the heading 'Architects' Registration Council' it is stated in the last paragraph that there are 18,892 persons on the register. The number seems to be becoming excessive from the point of view of the absorption of architects in this country. In the last ten years we have doubled the number and have also doubled the number of Students on the list. Has any forecast been made of how many architects are necessary before we become saturated? This is bound to affect the Ad Hoc Committee. Is the number of students coming through the schools higher than it was before the war or just after the war? We know that there was a bulge round about 1947. It is obvious that all these architects cannot become principals but must remain assistants. Will this fact cause headaches in five or ten years' time? We are becoming an overloaded body in some ways.

Mr. Thomas E. Scott [F]: I am not rash enough to forecast what the position will be in five or ten years' time. Towards the end of the war we produced a report, at the request of the Ministry of Labour, in which we tried to anticipate the needs of the architectural profession in the post-war years. We felt that the output of the schools and the input through the R.I.B.A. examinations would satisfy the needs of the profession. We recognised that there would be this bulge to which Mr. Thompson has referred, due to two quite obvious factors: that the numbers trained and qualifying in the war years were almost negligible, and that many students had had their training interrupted or been unable to begin it owing to service in the Forces. This made for a very marked increase in the numbers qualifying.

In addition, the 1938 amending act to the Architects' Registration Act, 1931, restricted the use of the title 'architect' to those who had qualified for admission to the register, which meant in almost every case qualifying for Associateship of the R.I.B.A. Had it not been for that, I feel sure that many who are members of the Institute today would not have qualified in that sense. The passing of the Final examination is an important qualification

for salary grading in local government service. From my contact with hundreds of students I am sure that that is for them an important objective.

I have no real fear that the rate of recruitment to the profession in the next four or five years is going to exceed the loss through what we commonly call natural causes. I believe that from an actuarial point of view the expectation of life of an architect after qualification is about 35 years. If you divide the number on the register by 35 and compare the number so obtained with the number entering the profession you will find that the profession is not likely to be seriously overcrowded. In any case the proof of the pudding is in the eating. Many of my friends in the profession have told me that they cannot get staff when they want them.

The Chairman: There will always be a job for the good architect.

Mr. C. B. Thompson [4]: Will these young architects who will be employed as assistants obtain sufficient experience and opportunity to better themselves or have to remain as assistants for very many years? If you increase the numbers of young architects you decrease their opportunities. An earlier speaker remarked that he was only able to keep pace with the rising cost of living. Assistant architects are cheap, and by increasing the number we are not improving the position. That was the point of my question. Are we producing cheap labour when some of the work could be done by a subsidiary profession such as draughtsmen? Are all these people architects in the real sense?

Mr. Thomas E. Scott [F]: I should deplore, and I hope that everyone here would deplore, the creation of what might be called a slave class. My hope, and I believe the hope of us all, is that all those who come into the profession, by whatever route, will have the proverbial field marshal's baton in their haversack. If they do not, there is the possibility that they will look elsewhere for protection, and the task of the Ad Hoc Committee will be made far more difficult, because I am sure that one of the bases on which it may be possible to determine some appropriate recompense for persons employed in our profession will be qualified membership of this Institute or registration. If we are to have a class of youngsters who are deemed unfit for qualification, heaven knows where the profession will go!

Mr. Thomas Peatfield [4]: I too do not think it would be a good plan to have a non-commissioned branch of the profession, but I do think that the Institute should be worried about the numbers of architects in this country. I believe it is correct to say that here in England we have twice as many architects as in all the other countries in Europe west of the Iron Curtain put together. We have between 18,000 and 20,000, and there are in all those other countries about 10,000 architects. I know that architects are a big

export line in this country and not in others, but those figures give us cause to pause.

The Chairman: I must bring the axe down on this question, because it is not an issue in the report. That completes the discussion of the report, and I ask you to vote on the resolution as follows:

'That the Report of the Council and Committees for the official year 1956-1957 be received.'

The resolution was carried.

The Chairman: I beg to move that a hearty vote of thanks be accorded to Mr. John Ratcliff, O.B.E. [F], and Mr. E. D. Lyons [A] for their services as Hon. Auditors for the past year.

The vote of thanks was carried by acclamation.

The Chairman: Mr. John Ratcliff, O.B.E. [F], and Mr. David Waterhouse [A] are both eligible and willing to be nominated as Hon. Auditors for the current year, and

if it is your pleasure I beg to move that they be so nominated.

The motion was carried.

Professor Basil Spence (Hon. Secretary): We shall all wish to accord a very hearty vote of thanks to Mr. Howitt for chairing our meeting so efficiently.

The vote of thanks was carried by acclamation.

The Chairman: That concludes the business. I thank you for your attendance and contributions.

Memorandum of Evidence on the Position of Architects in the Air Ministry Directorate-General of Works Submitted to the Warter Committee by the R.I.B.A.

A Committee, under the chairmanship of Sir Phillip Warter, is at present reviewing the organisation of the Air Ministry Directorate-General of Works. At their invitation, a small deputation from the R.I.B.A. recently gave evidence before this Committee.

As a basis for discussion on this occasion, a Memorandum of Written Evidence was submitted which is given below.

1. In framing our evidence for the Committee, whose invitation we welcome, we have had clearly in mind the fact that the Air Ministry Directorate-General of Works is, by tradition, a department of civil engineering. We recognise that, whatever the developments of recent times, this aspect of its work continues to predominate.

2. The case we offer for consideration is that there is nowadays no compelling reason why building should not be largely separated from civil engineering works, and accorded the kind of treatment which has become standard practice in so many other well-ordered public bodies.

3. We think that £25,000,000 is the lowest figure at which anyone would value that part of A.M.D.G.W.'s annual work which may be called building.

4. This work will need to be designed by men who have an intimate understanding of the R.A.F.'s needs and the complexities of site planning; who can design imaginatively within closely defined limits; comprehend and co-ordinate the services of several specialised professions and trades; and see the work through on site to a satisfactory conclusion.

5. By tradition and established practice, these are the functions peculiar to an architect and to which his training leads. We

believe the responsibility for them should rest firmly with him. Other professions bring their essential skills to a building project, but none of them is expected by training or disposition to see it whole, or to hold a just balance between a complex of needs—economic, functional, technical, sociological and artistic.

6. A.M.D.G.W. evidently recognise the soundness of this principle, for when the volume or complexity of work is too great for internal resources, they use consultant architects, often of distinction.

7. Internally, on the other hand, their Designs Office employs many architects too well qualified to be draughtsmen, yet too circumscribed in their authority and independence to be properly effective as architects. These architects, despite full professional qualifications, must depend upon written descriptions of a site they never see; receive news of the R.A.F.'s needs and wishes via Works Planning (whose important work can hardly be much advanced by including this 'post office' function); channel any queries to the R.A.F. back through Works Planning; see their plans altered without notice by those who, however admirable their judgment, are not architects; and have no opportunity to supervise or see anything of their work as it grows on the site.

8. To arrange a building programme in this way is, it seems to us, to hope for the best in professional performance while inviting the worst.

9. We recognise that type designs will figure prominently in any Air Ministry programme, although we understand that the circumstances of the R.A.F., and therefore the Synopses prepared for the Designs Office, are changing so rapidly that it is

seldom possible to use type drawings as more than a general guide. In conditions of such flexibility, considerations will constantly arise which are professional issues that only an architect can properly decide. It is hard to believe that these factors are given due weight when the architect, rated as a 'draughtsman', is in effect an N.C.O. under the orders of non-architects who are commissioned officers.

10. It is for these reasons that A.M.D.G.W. can hardly look for any improvement in the recruitment, and particularly the retention, of good 'architectural assistants', as they are called. It may well be that the present salary grades and structure of the Designs Office deserve attention, but to amend them would, we believe, be to tinker with a situation that needs fundamental revision.

11. The opportunity for enterprise, responsibility and, in the professional sense, independence, which any good man is bound to look for, must be guaranteed by proper gradings and salary structure. This, we are convinced, means transferring registered architects to the class of Professional Officers, with corresponding career prospects.

12. Implicit in this transfer would be the establishment of a Chief Architect as an independent head of department with direct access to the R.A.F., and responsible only to the Director-General of Works.

13. We should need more time than has been available to make precise recommendations about organisation, establishment and salary scales within the Chief Architect's department, but will be glad to make a study of the matter and report back, if this will be helpful to the Committee.

Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts.

Telephone: Garston 4040.

The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.

Telephone: Busby 1171.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.

Telephone: Princes Risborough 101.

The Director, The British Standards Institution, 2 Park Street, London, W.1.

Telephone: Mayfair 9000.

The Director, The Building Centre, 26 Store Street, Tottenham Court Road, London, W.C.1.

Telephone: Museum 5400 (10 lines).

The Director, The Scottish Building Centre, 425-7 Sauchiehall Street, Glasgow, C.2.

Telephone: Douglas 0372.

New Building Materials and Preparations.

The attention of members is drawn to the fact that information in the records of the Building Research Station, Garston, Watford, Herts, is freely available to any member of the architectural profession, and architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

Spray Taps. In the July 1956 issue of the JOURNAL (page 386) there was published an article by Mr. J. Crisp and Mr. A. Sobolev describing experiments on the use of spray taps supplying blended hot and cold water, instead of the usual separate taps. The Ministry of Works have now issued a circular giving the results of the experiments which the Ministry and the Building Research Station carried out in a large office building in London.

The circular states that 'The spray taps delivered four to five pints of blended hot and cold water a minute, against the normal 28 pints, giving an estimated saving of half a million gallons of water and 27 tons of coke a year. The simpler installation is cheaper all round and certainly more hygienic. The users voted in favour of it.'

These figures are certainly surprising and it is to be hoped that they will be noted by all concerned with the many industrial and office buildings that are being erected throughout the country.

A New Acetate Fibre Wadding. Messrs. Southalls (Birmingham) Ltd. announce the introduction of a bonded acetate fibre wadding made from Messrs. Courtauld's Fibroceta; it is known as B.A.F. wadding. Its purpose is to act as a resilient filling or padding between sheets of different materials (such as PVC, coated hardboard and certain types of fabric) or it can be sealed to plastic materials by modern welding techniques without the use of a separate bonding agent.

The material can be had in a range of densities, thicknesses, rigidities and widths, and it is claimed to be resistant to rot and attack by vermin. The thermal conductivity of the wadding, at a density of about 1½ lb. per cu. ft., is approximately 0.25.

Storage of Petroleum Spirit. The Fire Protection Association state that they are so often asked to advise on the best methods of storing petroleum, both in bulk and in small quantities, that they thought it desirable to present the principal legal requirements and also an outline of the best practice in storage and fire protection. Accordingly a booklet entitled *Storage of Petroleum Spirit* has been issued by the Association, who will supply copies free on application to them at 15 Queen Street, London, E.C.4.

The booklet contains sections on statutory requirements, storage up to three gallons, storage up to sixty gallons, filling stations, and distributing depots and bulk storage depots. Appendices deal with the design and siting of storage tanks, pipe fittings to storage tanks, electrical apparatus, first-aid fire extinguishers for small petroleum spirit fires, and properties of flammable liquids.

Pitch Fibre Conduit Modifications. Messrs. Union Fibre Pipes (Great Britain) Ltd. announce that on 1 April the wall thickness of their medium grade pitch fibre spigot and socket type cable conduit was reduced to 0.23 in. for the 2, 3, 3½ and 4 in. diameters, thus making possible a reduction in basic prices of from 2d. to 2½d. per foot. The company state that performance will not be affected as this type of conduit is normally embedded in concrete.

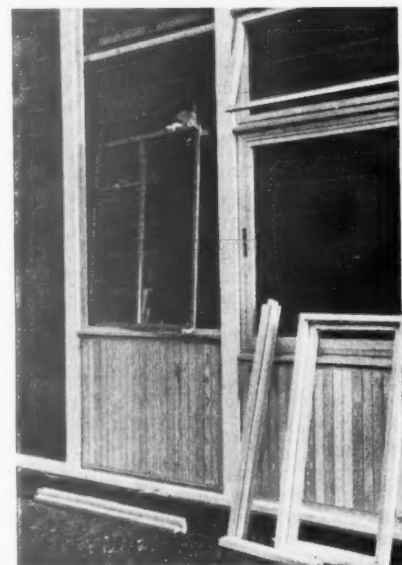
The wall thickness and prices of diameters over 4 in. are not affected.

Cladex Wall-pak Timber Construction. To an architect a new building in the course of erection provides an irresistible professional attraction; almost unconsciously he observes the method of construction. To one point he will almost certainly pay attention, and that is the system used for curtain walling, which is so prevalent today. Windows are, of course, windows and therefore it is in the panels between them, either horizontally, vertically, or both, that variety flourishes. One of the requirements of such infilling is that the material should in itself be weather-resistant and most of the materials used would seem to possess this quality, though it may be doubted whether sufficient attention is paid to the question of thermal movement.

In the London County Council school at Parliament Hill an impregnated plywood was used in the curtain walling, and now Messrs. H. Newsum Sons & Company of Lincoln have brought out a system of pre-fabricated timber curtain walling to which they have given the name Cladex Wall-pak construction. In essence the system consists of standardised, accurately machined and pre-cut timber sections which fit together, one into the other, so that erection on the site is a simple assembly operation to be done step by step, and when once the main elements—that is the sill, head and mullions—are in position all fixing of the remaining items can be done from inside the building, an obvious advantage in multi-storey construction. When the mullions are in place all other components fit in without further measurements or dimensional adjustments. The mullions are tied back to the main structure by mild steel fixing clips. It is claimed that the Wall-pak system is suitable for metal windows, timber sashes, direct glazing and various types of hardwood infilling panels. The structural elements are manufactured in grade A timber, namely Douglas fir and Afrormosia, and in grade B timber, Agba; the sills and transoms being in Iroko. These elements are pre-sorted and identified at the factory and put up into cartons, with a prepared plan or code to guide assembly.

The question of wind pressure has not been overlooked, and in an explanatory brochure there are tables giving permissible mullion heights for various spacings according to grade of timber and the three alternative wind pressures on which the design has been based, namely 10, 15 and 20 lb. per sq. ft. Another table deals with transom spacings.

Full information of the system may be had on application to Messrs. Newsum at 238 High Street, Lincoln.



Cladex Wall-pak timber construction. Assembly being done from the inside

Building Centre Report. The Director's report on the Building Centre's activities for 1956 has now been published and it indicates the growing importance and usefulness of the Centre. During the year attendances numbered 83,283 (81,269 in 1955), personal inquiries 75,190 (75,376), telephone inquiries 28,451 (24,708), and written inquiries 3,272 (3,075 in 1955). It is estimated that 60 per cent of those using the Centre are professionally concerned with building.

The redecorated lecture theatre and exhibition gallery are open to manufacturers for trade receptions and demonstrations to specially invited audiences; some 1,700 architects, surveyors and members of the Press attended during the year.

Eight meetings were held of the Building Centre Forum, set up to enable architects and manufacturers to discuss their problems; the discussions being opened by an architect and a manufacturer.

As noted in the March JOURNAL, the Centre began in May to issue a monthly list of new materials, and it now has a circulation of some 1,700 copies. Close contact has been maintained with similar Centres abroad, of which there are at present 22.

Readers will remember that Mr. Eric Bird, M.B.E., M.C. [A], joined the staff of the Centre during 1956 as Technical Education Officer on his vacating the editorial chair of this JOURNAL, and the interest aroused by his appointment is shown by the fact that during the remainder of the year since his appointment he lectured at eleven meetings of architects, surveyors and builders convened by Allied Societies of the R.I.B.A.

Evotect Weather Protective Paint. The corrosion of iron and steel, especially in outdoor situations, is a constant source of worry and many treatments have been advocated to prevent it. A new treatment is an anti-bituminous paint, called Evotect, which has been brought out by Messrs. Evode Ltd. of Stafford with the object of protecting iron and steel against weather corrosion. Messrs. Evode claim that one coat is sufficient for normal atmospheric conditions, a feature of the paint being that it may be applied direct to bitumen painted surfaces without the use of a sealer or special undercoat, provided that the bitumen is at least 14 days old. The initial gloss and gloss retention of Evotect, it is stated, are superior to those of bitumen-based paints.

Evotect is available in twelve decorative colours as well as black and aluminium, and as surfaces painted with the material may be over-painted with any normal decorative paint, without the use of a sealer, the rather drab look of bitumen-covered surfaces may be changed to colourful expanses.

The Caloray Free-standing Open Fire. In reading manufacturers' advertisements of a new product it is interesting to notice that approval by an organisation concerned with industrial art is now mentioned as



The Caloray free-standing open fire

something that should influence the reader in his consideration of the new product. Similarly the description 'contemporary' is thought to bias the reader in its favour. So far so good, as it means that prospective purchasers are deemed to be interested in the design of an appliance.

These thoughts are suggested by the manufacturers' announcement of the Caloray free-standing open fire, in which they say, 'Based on a prize-winning design submitted to the Royal Society of Arts Industrial Design Competition, it is probably the first open fire appliance to be unrepentantly "contemporary" in style. Capable of blending with any modern furnishing scheme, it quashes, once for all, criticism that solid fuel appliances inevitably strike an old-fashioned or jarring note.'

The Caloray can stand some four or five inches in front of an existing fireplace opening, connection to the flue being made by a cone-shaped outlet, so that the fire can give off heat on all its six sides, the recommended fuels being bituminous coal, 1 in. to 2 in. gas coke, anthracite nuts and manufactured fuels. Ports at the rear of the fire provide for convection heating.

The body is moulded in one piece of cast iron, the firebox being lined with refractory firebrick. Several colours are available for the finish, and the appliance can be had with tubular feet, short feet, a closed cabinet base or with wall-bracket supports. There is a retractable sparkproof wire mesh guard. It is claimed that the Caloray has a thermal efficiency of 80 per cent. The present retail price is in the region of £13 to £15, according to finish.

The makers are Messrs. Lane and Girvan Ltd., Caledonia Stone and Iron Works, Bonnybridge, Stirlingshire.

Snowtop, Colourtop, Metaltop and Sealtop. These materials have been put on the market as finishes to concrete floors, the first two being in the form of dry powder which is sprinkled on the face of the wet concrete slab and is then trowelled in. Metaltop, as its name implies, contains principally a metal aggregate and is

intended to produce a surface that will withstand heavy wear by factory trucks. With these materials, therefore, a finished floor can be produced in one operation during the placing of site concrete.

Snowtop and Colourtop are claimed to give a surface that has a high resistance to abrasion, and by brushing on Sealtop the floor is made impervious to penetration or staining by most commercial oils and lubricants.

The manufacturers are Messrs. Snowtop Products Ltd., and the sole distributors are Messrs. J. H. Sankey & Son, Ltd., Aldwych House, Aldwych, London, W.C.2.

Fire at the Jaguar Works. In the FIRE PROTECTION ASSOCIATION JOURNAL, No. 37, of April 1957, it is mentioned that a full report of the fire at the Jaguar Cars Ltd. at Coventry was not available at the time of going to press, but should be ready in time for the F.P.A. July Journal. As it seems that the particular nature of the roof construction played an important part in the spread of the fire, the full report will be awaited with interest. The address of the F.P.A. is 15 Queen Street, London, E.C.4.

Codes of Practice Recently Published. C.P. 151: 1957. Part 1. **Wooden Doors.** This is Part 1 of C.P. 151, **Doors and Windows including Frames and Linings;** it deals with wooden doors of all types used for normal purposes and with the different methods of hanging them and fixing their frames and linings. A list of definitions is given, as well as information on sizes, weights and quality of timber, on adhesives and the use of preservatives.

In the design section, recommendations are given on weather protection, draught exclusion, precautions against fire, spread of flame, thermal insulation and durability. The various types of doors and their methods of opening are described and illustrated, and guidance is given on economy, strength, rigidity and dimensional stability. On and off site work is described, with recommendations on inspection and maintenance. Price 10s.

The R.I.B.A. representative on the drafting committee was Mr. G. Newell [A].

British Standards Recently Published. B.S. 2845: 1957. **Dimensional and constructional requirements for coke-burning inset open fires without boiler and without convection.** The British Standards Institution think that open coke-burning fireplaces will become more popular as clean air smokeless zones are created under the Clean Air Act. In this new B.S. the specified dimensions and constructional requirements for coke-burning fires will be sufficient to ensure satisfactory performance in terms of heat generation, fuel consumption, and the maintenance of a 'lively-looking' fire. Coke fires made in accordance with this Standard are included in the Ministry of Power's approved list of appliances for local authorities.

In order not to restrict the scope for variations in design the Standard is confined to essential features, notably dimensions, which control performance. Price 3s. 6d.

A Note on the Work of the Cost Research Committee

THE BRITISH ARCHITECTS' CONFERENCE last year in Norwich had 'Architectural Economics' for its main subject. Prompted by the Conference discussions, and by the need to have a positive form of liaison with a Committee of the R.I.C.S. who had been set up to undertake a study of building costs, the Institute decided to form its own Cost Research Committee.* The Committee have now been functioning for several months and it was thought timely to say something about their work in the JOURNAL.

The proceedings of the Norwich Conference covered a wide field. Underlying most of the contributions was the assumption that the architect's contribution to economical building is made in design; using this word in a broad sense to mean the process of finding a solution to a particular building problem which is appropriate visually, functionally, technically and economically.

The Committee share this view and another which also underlay many contributions at the Conference: that many architects feel themselves to be under-equipped in conditions today to give proper weight to the economic factor during the process of designing. By training, an architect is equipped to weigh and balance the claims of plan and mass, proportion and function, structure and convenience and so on; but in the absence of a proved and accepted method of watching and checking the effect on the cost of the building of all the decisions made while designing, an architect must rely on his experience and on that of his Quantity Surveyor. There is some evidence that even a great deal of experience is not always enough.

The Committee think that this gap in the profession's technique is a serious one which affects nearly all buildings; and that this weakness in estimating and cost control is one of the most frequent causes of complaint from clients. There is an economic factor affecting design of most buildings; only some have to be economical in the usual sense of 'low cost', though these form an increasing proportion of the total number. When there are no limits of cost imposed on the architect, even by his own preliminary estimate, it is his duty to spare his client unnecessary expenditure and to provide value for what is spent by a proper distribution of expenditure on the different parts of the building.

Therefore the Committee decided to

* The Cost Research Committee were set up by the Council with the following terms of reference:—

(a) To consider the points raised at the British Architects' Annual Conference 1956, held at Norwich, in relation to those aspects regarding which architects can contribute to economical building and to suggest lines of action where merited.

(b) To consider the formulation of some positive method by which liaison can be established between the R.I.B.A. and the R.I.C.S. Quantity Surveyors' Committee.

The membership of the Committee is composed of Mr. Anthony Pott [A], Chairman, Mr. A. W. Cleve Barr [A], Mr. R. Llewellyn Davies [A], Mr. R. Baden Hellard [A], Mr. F. R. S. Yorke [F], and Mr. W. J. Reiners representing the Director of the Building Research Station. Since their appointment in November 1956, the Committee have held thirteen meetings.

make their first job the study of methods by which the architect can bring considerations of cost into the process of designing on an equal footing with the other factors. Individual architects, partnerships and departments who were known to be interested in this problem and to have tried out their ideas, were invited to help the Committee by putting their ideas and experience before them. This they have done generously in writing or orally, and the Committee are most grateful to, amongst others, Mr. J. Carter [A], Assistant Editor (Costs) of the ARCHITECTS' JOURNAL, Mr. J. L. Womersley [A], City Architect of Sheffield, Mr. J. C. Eastwick-Field [A], and Mr. J. C. Stillman [A], Mr. J. Wilkinson [A] of Grenfell Baines & Hargreaves, and Mr. A. E. Towler, A.R.I.C.S., all of whom have made helpful and instructive contributions to the work of the Committee.

The Committee were disappointed at the response to their invitation, in the R.I.B.A.

JOURNAL of February 1957, to members to contribute their experience on this subject to the Committee's work. Only one reply was received, a valuable one from the architect's department of a local authority. Nevertheless, the Committee believe that an interest in this subject is rapidly growing in the profession, and that there are many members who could usefully contribute their experience in this field to the Committee's knowledge. The invitation to contribute is still open. Despite this lack of encouragement, the Committee intend to continue this investigation before undertaking other work.

The Committee have had friendly and useful contacts with both the Cost Research Panel and the Sub-Committee on Elemental Bills of Quantities of the Quantity Surveyors' Committee of the Royal Institution of Chartered Surveyors; and they will later consider by what permanent method liaison can be established.

Practice Notes

Edited by Charles Woodward[A]

IN PARLIAMENT

DEREQUISITIONED PREMISES (Office Use). Asked what steps he would take to ensure that houses which had been used for offices and then re-converted while requisitioned at public expense for residential purposes should not lapse into office use when derequisitioned, the Minister of Housing and Local Government replied: The normal policy in London is to refuse planning permission for the office use of property which is suitable for residential occupation. Permission, however, may not be required for the resumption of an office use on derequisitioning, and on my present information I do not consider that any special action is needed to deal with cases of this sort, which are likely to be few. (16 April 1957.)

Fixed Price Contracts for Building Work.

Asked whether he would make a statement regarding tenders for Government and other building contracts, the Minister of Works replied: My predecessor announced in a reply to my honourable and gallant friend the member for South Angus on the 15th May, 1956, that my Department was to carry out an experiment in inviting tenders on a fixed price basis, that is to say without the inclusion of cost variation clauses for labour and materials for selected projects of values not exceeding £100,000. This experiment has been successful and I have discussed the matter with representatives of the Building and Civil Engineering Industries. The Government have now decided that in future all Government Departments shall invite tenders on the

fixed price basis for all works, irrespective of size, provided that these works have been thoroughly planned in advance and provided that the estimated contract period is not more than two years. Local Authorities and the Nationalised Industries will be invited by those of my Rt. Hon. friends concerned to adopt a similar policy. The Government hope that these steps will be a real contribution to the stabilisation of costs and prices. (30 April 1957.)

Fixed Price Contracts for Building Work.

As announced by the Minister of Works in Parliament on 30 April, the Government have decided, after discussion with representatives of the Building and Civil Engineering Industries, that all Government Departments will invite tenders on the fixed price basis for all works, irrespective of size, provided the estimated contract period is not more than two years.

This decision follows an experiment by the Ministry in inviting fixed price tenders for selected building projects up to £100,000 in value. This experiment showed that the tenders submitted on this basis were keenly competitive and did not show evidence of inflation in order to cover possible risks.

The Ministry emphasise the importance of complete 'pre-planning' of building jobs for which firm contract prices are required. If a builder or civil engineering contractor is to be able to quote a keen fixed price he must be given a clear indication of the work required and also of the time in which the work is to be done. Any alterations in the work after the contract has been placed must be kept to the minimum and tenders must be accepted quickly after they have been received.

With a 'fixed price for a fixed job' the contractor is able to plan ahead and to make the best use of his plant and his staff.

Another advantage for the contractor is that settlement of the final account is made more quickly because the fewer the variations in the contract the less scope there is for dispute about the final cost. There is also no need to re-measure the work when it is finished to check claims for increases in costs.

For a client the great advantage of a fixed price contract is that he knows in advance how much the job will cost and the work is likely to be completed more quickly.

Local Authorities and the Nationalised Industries will be invited by the Ministers concerned to adopt a similar policy to that of the Ministry of Works.

SECURITY BONDS AND RETENTION MONEY. Birmingham Corporation have recently decided as an experiment to dispense with the necessity for a contractor to provide a bond as security against his default. The Building Trades Employers said that the requirements caused their members financial difficulty and led some firms to give up corporation work.

Another concession made relates to retention money. During the trial period the amount of retention money is to be reduced and contractors will receive part of the money on completion of the work without having to await final approval. The Corporation have also decided to end their practice of paying interest on retention money. The benefit to the contractor, it is concluded, does not justify the administrative cost involved. (THE TIMES, 16 April 1957.)

Security Bonds. Extract from a speech made by Mr. Leonard A. Walden, of Henley, President of the National Federation of Building Trades Employers, at the half-yearly meeting of the Yorkshire Federation of Building Trades Employers on 26 April 1957.

'The continuance of the Government's credit restriction policy makes it difficult for many building firms to finance their work, particularly in the early stages. Local and public authorities are responsible for some 50 per cent of the building work put in hand today and I hope therefore that many of them will see their way clear to follow the lead given recently by the Birmingham Corporation in freeing builders from the necessity of providing a bond as security against default. I feel sure that the experience of the Birmingham Council of having no calls made on such sureties for at least 12 years has been shared by many other local authorities.'

SCHEDULES OF CHARGES AND HIRE RATES FOR DAYWORKS. Removal of Fuel Surcharge on Haulage Rates. The London Master Builder's Association and Southern and Eastern Federations of Building Trades Employers announce that the temporary surcharge on the Haulage Rates (Schedule 'O') in their Schedules of Charges and Hire Rates for Dayworks for use with the National Schedules of Dayworks Charges which came into operation on 31 December 1956 will cease to apply after 28 April 1957.

MINISTRY OF HOUSING AND LOCAL GOVERNMENT. Requisitioned Houses. Circular 30/57 dated 17 April, addressed to housing authorities in England and Wales, refers to the progress made in releasing requisitioned houses. The number of dwellings retained has been reduced from 89,597 to 54,347.

The Circular points out that only three years remain before requisitioning ceases and indicates how the work of release should go ahead on the assumption that the Rent Bill now before Parliament will pass into law in substantially its present form.

The Circular is obtainable at H.M. Stationery Office, price 8d. net.

CLEAN AIR ACT, 1956. Exempted Fireplaces. The Minister has made an Order (1957, No. 541) exempting fireplaces specially designed or adapted for combustion of liquid fuel from the provisions of the Act relating to smoke control areas. The appliances must be installed, maintained and operated so as to minimise the emission of smoke. It will be permissible to instal in new buildings, under the model bye-laws, fireplaces specially designed or adapted for combustion of liquid fuel.

The types of appliances for heating or cooking which are suitably designed for burning coke or anthracite are contained in the list published by the Coal Utilisation Council and the Solid Smokeless Fuel Federation which is current at the time of application for bye-law approval. The list referred to covers only those appliances which have been submitted for official test and passed as capable of burning coke or anthracite efficiently.

The model bye-law is to be amended by substituting the word 'coke' for the words 'gas coke' in sub-paragraph (c) of paragraph (1) of bye-law 106A.

ISSUE OF EXPLANATORY DRAWINGS. In July 1956 the Joint Consultative Committee of Architects, Quantity Surveyors and Builders issued the following Procedure Note:—

'At the request of the Joint Consultative Committee of Architects, Quantity Surveyors and Builders, the Council of the Royal Institute of British Architects has considered a proposal that explanatory drawings should be issued with tender documents and Bills of Quantities. In agreeing to this proposal the R.I.B.A. Council stipulated that the drawings should be issued subject to the provisos, (a) that the practice was not mandatory, (b) that the drawings were to be used solely for the purpose of explaining the nature of the scheme, i.e. they did not form part of the Contract in any sense.

The Joint Consultative Committee strongly recommend the issue of the explanatory drawings referred to and have expressed the hope that the practice will become widely established.

'Where Contractors are unsuccessful in tendering and explanatory drawings have been furnished these drawings should be returned to the architect for further use.'

The Joint Consultative Committee wish

again to draw the attention of all concerned to this Procedure Note and to add that the Standing Joint Committee for the Standard Method of Measurement of Building Works have informed them that, in their opinion, the provision of drawings, as recommended, could lead to the simplification of the Standard Method and, in any case, would assist builders tendering to give a closer estimate of the costs of any project.

MINISTRY OF EDUCATION. The Ministry have issued to Local Education Authorities an Administrative Memorandum No. 548, dated 9 April 1957, which concerns building procedure and the current arrangements to be followed for obtaining the Minister's approval of projects.

The definition of 'plans' includes, where appropriate, elevations and sections.

A minor project is one with a gross cost not exceeding £10,000, and a major project is one with a gross cost exceeding £10,000.

Major projects should not be broken down into artificial instalments each of less than £10,000, nor should a major project of improvement be attempted by means of successive minor projects at short intervals. Minor projects should not be used, for example, to provide a complete new primary school over a period of three or four years.

Major projects require the Minister's approval in principle, and must comply with the Standards for School Premises Regulations, 1954. Guidance will also be found in the Ministry's Building Bulletins. The project must be carried out within the limit of cost set by the Ministry. Whilst allowing additional costs in certain cases the Minister will not normally consider the provision of caretakers' or groundsman's houses with superficial areas greater than 900 sq. ft. or at gross costs in excess of £2,250. Similarly the limits for houses for head teachers should be regarded as 1,200 sq. ft. and £3,000.

An Education Authority may wish to negotiate with a nominated contractor for the building of a project or even, in suitable circumstances, for a number of projects. The Minister will not object to such arrangements where it seems likely that speedier or more economical building will result. His prior approval, however, should be sought as early as possible and full details supplied of the proposed arrangements.

Where a project is proposed to be carried out by direct labour the Minister will wish to be assured that the job has been obtained by the department in competition with private contractors and that the direct labour force is adequate in quantity and quality. The contract must be let on the basis of a priced bill of quantities and a lump sum tender, and letters must be exchanged between the education and direct labour departments making it clear that the Royal Institute of British Architects' form of contract will be held to apply. Claims for excess expenditure will be

judged as in the case of work undertaken by a private contractor.

Approval to excess of expenditure due to fluctuations in labour and materials costs will normally be given when the final costs of the project are known.

Where a variation order becomes necessary during the construction of a project, the Minister's prior approval will not be required where the cost can be kept within the approved contingency sum. Variations in plans, however, whatever their effects on costs, should be notified to the Ministry.

Fees paid to private architects, quantity surveyors, consultants, etc., may be met from loan.

If long preparation of a project entails a substantial bill for fees, etc., which has to be met before the main loan sanction can be applied for, an Authority may apply for a separate loan to cover the expenditure.

LAW CASES

Balfour v. Barty-King and Another. Escape of Fire spreading to Adjoining Premises; Liability of Occupier. In this case the Court of Appeal dismissed the appeal by the defendants who had been held liable for the spread of fire from their premises to the adjoining premises.

In dismissing the appeal the Court said that a person in whose house a fire was caused by negligence was liable if it spread to the house of his neighbour, whether or not the negligence was his own or that of his servant or guest; that the fire had been caused by the negligence of the contractors' workmen in using a blow lamp in proximity to inflammable material and that, therefore, the defendants, who had chosen the contractors, invited them to do the work and might have ordered them out of their house at any moment, were liable to the plaintiff for the damage caused by the fire. (1957. *All England Law Reports*, Vol. 1, p. 156.)

Davey v. Harrow Urban District Council, Damage by Tree Roots. Court of Appeal. 16 April. This was an appeal by the plaintiff against a judgment dismissing his claim against the Council for damages for nuisance from the roots of trees. The roots had damaged his house but the Judge had found that the trees were not the property of the Council. In the event of a successful appeal he assessed the damages at £1,000.

The Court of Appeal, after seeing documents not disclosed by the defendants at the original hearing, and considering further evidence, had no doubt that the trees, now cut down, had been growing on a cemetery owned by the defendants and gave judgment allowing the plaintiff's appeal with costs.

It had been contended by the defendants that they were not liable unless it was shown that the trees were planted and were not self-grown, and that no action could be maintained where the damage was caused by natural growth or natural causes. The Court of Appeal could not find that any distinction had ever been drawn between those two classes of trees and said that it must be taken to be established law that if trees encroach, whether by branches

or roots, and cause damage, an action for nuisance will lie.

The defendants were refused leave to appeal to the House of Lords.

Correspondence

THOUGHTS ON PONTI'S PIRELLI BUILDING

The Editor, R.I.B.A. Journal

DEAR SIR,—We have been fortunate in hearing Professor Ponti's own discourse on his Pirelli building and it may be presumptuous to enlarge on what we have heard. If I do so it is because this building is of special significance beyond its purely architectural qualities, that is, of course, if one discriminates between one aspect of architectural quality and another.

The special significance of the Pirelli building lies in the fact that it is the result of exquisite architect-engineer co-operation which has led to the incorporation of certain principles of the laws of statics and contributed vitally to the final shaping.

Nervi explains that the form has been conceived so that all the structural elements have a common moment of inertia, in such a way that the resultant pressure, caused by wind forces under the worst conditions and the weight of the structure, comes within the 'no tension' core. As no tension is thus induced anywhere in the structure it could be practically free from steel and almost free from the great sway usually anticipated in a building of great height. No tension of course also means no 'permissible' cracks in concrete and many other obvious advantages. It may therefore be of interest to restate the simple structural law underlying this conception.

Most architects are familiar with the law of the 'Middle Third', usually applied to gravity retaining walls and foundations. What may be less well known is the fact that this law is only the special case applied to the rectangle of a general law for the 'no tension' core. The formula for the general case is $e = \frac{Z}{A}$, where 'e' is the per-

missible eccentricity and 'Z' the sectional modulus and 'A' the total cross-sectional area. (See footnote for derivation.*) Thus the no tension core for the solid circle becomes $\frac{D}{4}$ or the 'Middle Quarter'.

The Pirelli building has been designed so that the combined sectional modulus for the four main supports and the bow-shaped ends about the longitudinal axis, divided by the combined cross-section, result in a permissible eccentricity large enough to accommodate within its boundaries the resultant of the combined wind forces and the weight. (See diagram.) The interpretation of this structural conception into form of such elegance is clearly the

* Derivation of formula:

$$F = \frac{P}{A} \pm \frac{Pe}{Z} \therefore \text{For } F_{(TENSION)} = 0$$

$$0 = \frac{P}{A} - \frac{Pe}{Z}$$

$$\therefore \frac{Pe}{Z} = \frac{P}{A} \therefore e = \frac{Z}{A}$$

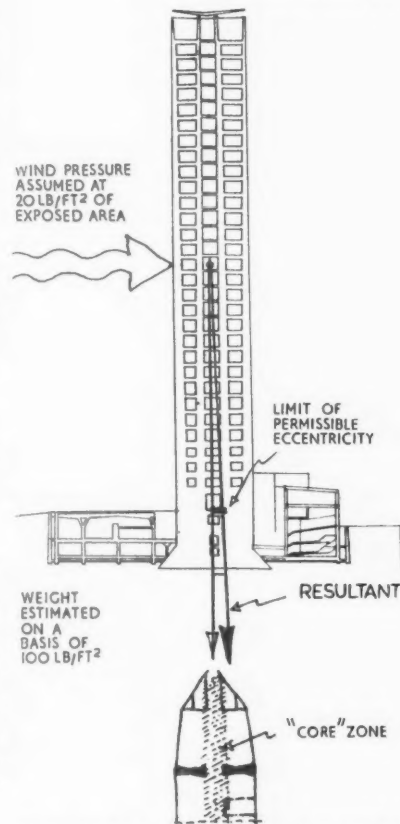
outcome of the close co-operation between an engineer and architect of equal stature.

But the influence of structural function on form goes farther than this. The deep, partly prestressed beams which carry the floors and transmit the load between the supports, have been given an elegant flare. This results in avoiding stress concentrations at the junctions of beam and support, normally encountered by allowing an even 'stress flow' to develop at these points. This elegance, derived from an understanding of the stress conditions, is reflected in the rails of some of Ponti's chairs, with probably less justification other than that of an aesthetic conception originally derived from a feeling for structure.

So the whole building is a crystallisation of the great drama of forces and stresses in equilibrium, not unlike a Gothic cathedral, but based on a conscious and inspired interpretation of scientific principles. Even if the calculation in detail is beyond the reach of the architect, a recognition of these principles and their translation into beautiful form is of great importance from the architect's point of view and in this, I submit, lies the special significance of this building.

Yours faithfully,

M. WERNER ROSENTHAL [F]



The No-Tension 'Core' ('Kern') Theorem as applied to Nervi's Pirelli Building (architect, Gio Ponti). An approximate calculation of the width of the 'Core' has been made, giving a permissible eccentricity of about 3 metres each way. It can be seen that the resultant of weight and wind load comes well within the limit.

THE PROTECTION AND REPAIR OF HISTORIC BUILDINGS

DEAR SIR,—I recently had the pleasure of attending the York Institute of Architectural Study to take part in a course on the 'Protection and Repair of Historic Buildings', which was held from 2–11 April 1957 and was followed immediately by a five-day course on the 'Care of Churches'. The Institute is housed in the disused Church of St. John's, Ousebridge, which had been derelict for 18 years and has now happily been repaired and furnished most tastefully. In addition to facilities for private study the Institute also holds approximately twelve exhibitions each year which are open to the general public without charge. An exhibition on the 'Protection and Repair of Historic Buildings' was arranged to coincide with these two courses, the material for it being drawn from the Institute's collection of drawings, models and photographs.

Twelve students, most of them architects in private practice, from places as varied as Newcastle upon Tyne to Penzance, attended the course. Hotel accommodation was arranged by the Institute and proved to be extremely comfortable. The programme included a comprehensive history of building construction and the development of domestic architecture, followed by a series of lectures illustrating the maintenance and repair of these varied buildings.

Further lectures on masonry work proved most valuable and the demonstration models and visits which followed were of immense interest. In spite of the advantages of modern techniques and new materials the course emphasised to me the importance of remembering in subsequent repair the methods employed by the original builders.

The keynote throughout was sympathetic, conservative repair applied with common sense. It also proved without any doubt the dreadful crimes which can be committed by the architect without specialised training in restoration work.

A great deal is written today about the necessity for economy. Here is one way that real economy can be effected—by regular maintenance and repair carried out with the benefit of proper care and advice.

Dry-rot and beetle attack on timber was fully discussed by Mr. J. Jowett of the Timber Development Association. Some frightening examples of the havoc caused by this pest were later seen in the churches which were visited. Many thousands of pounds could have been saved if proper attention had been given to these buildings in the past.

A visit to York Minster provided an excellent opportunity to see in practice the advice and experience of Mr. R. Potter who had previously lectured most authoritatively on roof coverings.

A new note was struck by Mr. F. Sharpe in his informative talk on 'Bells and Bell-hanging', followed by a session on hand-bell ringing. We then had an opportunity to inspect the fine old bells in the belfry of the Institute.

The course concluded with a criticism and discussion led by Mr. G. Pace, architect to Llandaff Cathedral, on the oral solution given by the students for an actual problem on the protection and repair of one of the local churches.

We architects are grateful to our clients for their instructions, but we wonder sometimes how many of our carefully worded reports, based on meticulous inspection of these buildings, are filed away and forgotten, and how many acted upon.

My fortnight's stay in York was of immense personal value: it helped me to appreciate more clearly the need for specialised training in this vital work. I heartily recommend all members of the profession to avail themselves of the privileges open to them.

Yours faithfully,

A. STANLEY BARNES [F]

POSTS FOR RETIRED MEN

The Editor, R.I.B.A. Journal

DEAR SIR,—Recently our office boy left to join the Royal Air Force, and we decided to place the following advertisement in the EVENING NEWS:—

'Messenger required for architect's office in the West End. Suitable for retired but active man. Apply Box ...'

The following day, we received 114 replies from a great variety of responsible men, including a retired general, several professional people, clerks and bus drivers, etc.

I am writing because I think it quite possible that other architects might well be able to offer posts to people such as these, who are evidently in the direst need. It would appear to me that they are well able to fill this type of post, where someone responsible and reasonably efficient is of more value than a younger person with greater energy, but lacking these particular qualities.

Yours faithfully,

BRYAN WESTWOOD [F]

DISTASTE AT MODERN TRENDS

DEAR SIR,—The letters of Mr. Gerald Edwards, and of Mr. Kent, in the March issue deserve support.

The craving for gracious design is greater than would be thought from exhibitions and other contacts with the public. In these, an apparent monopoly is given to aggressive design and forms of exhibitionism which we too often extolled as 'genius'. Tooley Street tailors are apt to get too much credence these days, and to produce the impression that the extremists really stand for what this country really seeks in design. Perhaps, for a change, the public might care to be shown works of grace and charm, which can still emanate from those to whom modesty and not showing-off is the first qualification of an artist.

The really unforgivable sin of so much modern stuff is that it ignores the sound dictum that gentlemanly conduct towards its neighbours and surroundings is the first criterion of good design. In what

other walk of life could one get away with the arrogant and insulting manners now displayed at every turn? The motto of the authors seems to be 'Epatez la bourgeoisie, coûte que coûte', which is hardly a worthy conception of the Mistress Art! The lack of originality Mr. Kent has adequately dealt with.

Yours faithfully,

P. C. HARRIS [Retd. F]

Book Reviews

De Stijl, 1917–1931, by H. L. C. Jaffé. 9½ in. viii + 293 pp. + 52 pls. Tiranti. £2 2s.

This is a book you must all buy, and not be put off by the following criticisms, which are only intended to push a little harder towards an understanding of the de Stijl phenomenon.

I found Mr. Jaffé curiously uncritical, his values are those of the people he is supposed to be examining. If they say they are achieving such and such, Mr. Jaffé agrees. In consequence his book is fullest about those who said most.

Thus, of the architects, Oud gets most attention paid to him, in spite of the fact that the quotations from his writings and the evidence of his buildings would seem to place him quite outside the de Stijl canon and what is more important outside the de Stijl spirit. This does not mean that Oud is no good, but he was after something else. Similarly, how can van Eesteren's town planning projects (for example the Unter den Linden scheme shown in the book), which are strictly analytical, be considered as de Stijl? Obviously both these men have to be evaluated de Stijl-wise, but a man can be many things at the same time, and surely we are far enough away from the movement to fit together what the various participants did and said common-sensically, and not try and fit things into the canon that cause it to become woolly and meaningless. The essence of the de Stijl idea is quite clear, and elements which are accidental or irrelevant to it are quite easy to sort out. I think it is important to do this, because, although Mondrian may have lived in a cupboard (Mondrian is reputed never to have left his room in Paris—see footnote), the other members of the group knew quite well what was going on elsewhere and indeed were partly responsible for it.

For an architect, perhaps the most interesting parts of the book are the details of Theo van Doesburg's journeys to Germany in 1921–2. Most people have heard of his 'de Stijl course' at the Weimar Bauhaus, and the clash of personalities which resulted. Mr. Jaffé characteristically follows van Doesburg himself in playing-down the drama of this episode, and no light is shone on the modern-movement-myth that there was an attempt to shoot down van Doesburg, so that Expressionism should remain pure. But what is given here are the names of some of the Berlin 'pupils'—Werner Graeff, Mies van der Rohe,

Richter, Hilberseimer. If one adds the Weimar boys—Max Burchartz, Peter Röhl, Marcel Breuer, Adolf Meyer, Dexel, Forbat—one sees what a formidable architectural build-up this produces, especially if one remembers that the de Stijl Exhibition hit Paris in 1923.

Someone has said that de Stijl is alternately undervalued and overvalued in the history of modern architecture. Mr. Jaffé never overstates his case on influences, and it is left perfectly clear that in the case of Mies, Le Corbusier, and the architects of the Bauhaus, de Stijl was only one factor in the crystallisation of their attitudes and the formation of their styles.

Any study which contributes some facts concerning the inter-relationship of the individuals of the various movements of that time is the most valuable thing we can possibly have at this time.

Mr. Jaffé's book is certainly the most important monograph of a movement since Wittkower's *The Principles of Architecture in the Age of Humanism*, and for precisely the same reason. It tries to explain the convictions which lie behind the physical manifestations. Unlike that volume, however, it fails actually to analyse the pictures or buildings in any detail, and this is, as I have suggested previously, due to Mr. Jaffé's obsession with the writings rather than the objects. This is reflected in the serious shortage of photographs and drawings of the architecture, and the ridiculously small number of reproductions in colour of the paintings. All but one of the reproductions in colour previously appeared in the Stedelijk Museum catalogue of the 1951 de Stijl Exhibition, and the remaining colour picture is, I suspect, reproduced from a block previously used as a Stedelijk penny postcard. This is hardly fair and not very useful, for nearly everyone buying this book will already own the catalogue and the postcard.

PETER D. SMITHSON [A].

Footnote: Reitveldt never met Mondrian in spite of the fact that they both contributed to numbers 2-7 of de Stijl, and Reitveldt's armchair appeared in the founding year 1917 and was much 'purer' (in Mondrian's own sense) than Mondrian's work at that time.

Some architectural writings of Henry Martineau Fletcher, and H. M. Fletcher: A memory and a portrait, by *Hope Bagenal*. 8½ in. 148 pp. St. Albans: Staples Printers Ltd. 1957.

Henry Martineau Fletcher was born in 1870 and lived until 1953. Thus he could look back on more than a decade of adult life in the reign of Queen Victoria, and, from that datum, measure the violent changes that were to occur in the first half of the 20th century—changes that at first affected architecture very little, but in the end revolutionised it.

His daughter, Mrs. Janet Pott, has made a little book of his writings, and these are preceded by a short account of his life by Hope Bagenal. Some eighteen years in time separated them, but a correspondence of ideas and character united them as friends, and this intimate and beautifully drawn

portrait of Henry Fletcher as a man and as an architect provides the key to his work and his personality.

To those of us of a (then) younger generation, he seemed austere, courteous and cultured—not unlike one's notion of a Bostonian of a fine vintage.

From hearing him speak at the R.I.B.A. and at the A.A. on a number of occasions, I became aware that four subjects claimed his special interest—craftsmanship coupled with the name of The Art Workers Guild, Architectural Education, France and Cambridge, and it was evident that he spoke with clarity and conviction. The R.I.B.A. Conference at Cambridge in 1933 comes specially to mind. For the first time in its history, women were permitted to dine in the Great Hall of Trinity College, while many wives of Trinity men looked down from the gallery, not without envy. It was appropriate and fortunate that Henry Fletcher was on that occasion called on to propose the toast of the guests, and he did so with a nice and humorous appreciation of the fact that as a member of the R.I.B.A. he stood as host to members of the College, and that as an old Trinity man he was at once guest and host.

Six of his delicate and sensitive sketches (pencil seems his happiest medium) are reproduced in this opusculum. Of these, two were made in Albi, and it is clear that the south-west part of France had a special place in his affections, as well it might, for here pre-history, history, religion, landscape and latitude have provided a background for and helped to create architecture that is sometimes magnificent and often delightfully wayward.

It would be hard to better an account of this region which he wrote for the ARCHITECTURAL REVIEW and which was published in October 1921. In it one finds, besides appreciation and criticism, an intimate knowledge of the how and the why of each of the buildings he describes. This combination of exactitude and breadth of view shows up in all Henry Fletcher's writings, and one imagines that nearly all his speeches were writings originally, for they are taut and spare and organised, in contrast to the loose-textured conversational style of an extempore speaker. His spell of Presidency of the A.A. at the critical period of 1917 must have stimulated and canalised an active concern for architectural education, which all his life remained one of his major interests.

This is a book which is well done and was well worth doing. It will give pleasure to all who knew Henry Fletcher and particular pleasure to those who knew him well.

JOHN MURRAY EASTON [F]

Building Law Illustrated, by B. G. Phillips. 2nd ed. 8½ in. xvi + 207 pp. incl. illus. E. & F. N. Spon. 1956. 25s.

The new edition of this simple guide to building legislation includes the amendments and new Stock Clauses in the revised Model Bye-laws. The meaning of each particular enactment is explained by sketches of the part of the building concerned—an excellent method.

Tropical Architecture in the Humid Zone, by Maxwell Fry and Jane Drew. 10 in. 320 pp. incl. illus. Batsford. 1956. £3 3s.

Tropical Architecture! Scorching sunshine, deep shadow, exotic plant forms, simple buildings and simple functions—a superb subject for a superb book. Yet Maxwell Fry and Jane Drew have somehow surrounded indigenous art with European science to produce an indeterminate scientific art book, in which the chatty text lacks conviction and eventually becomes rather boring, although it is interspersed with some effective diagrams and a host of familiar illustrations. Undoubtedly this book contains some good information for the student of tropical architecture, but it would be much more effective if the material were drastically condensed.

The contents, in addition to the highly informative technical data in the appendices, cover the climate, the various building types—residential, educational and commercial—health and hygiene. The most important developments occur in housing and the planning of housing layouts. The failure to combine the indigenous plan patterns with European architectural philosophy is admirably, though unintentionally, illustrated in the Tema rebuilding project. Of the individual buildings, by far the most interesting is the labourers' terrace housing, also at Tema. Most of the other examples are modern colonial types using typical modern building components.

There is some indication of the great possibilities, as yet mostly unexplored, in commercial and educational buildings. The examples chosen, mainly by British architects, are mostly English-type schools and layouts with tropical trimmings—grilles, louvres, etc. But here and there the discerning reader can glean some useful tips and good leads.

In the end, though, the book fails to satisfy. It is possible to appreciate the advantages of Swishcrete (a name guaranteed to make anyone cringe), the garden village of Tema and the various collegiate buildings illustrated, but are these the answers to the building problems of the tropics? This is the question posed, but not answered. Surely in a book of this size the authors could have indicated patterns of development based on a rational philosophy, and outside the aura of present building projects. Perhaps we must wait for a builder to become as engrossed as Schweitzer before any such pattern is defined.

JOHN TOON [A]

Erection of Constructional Steelwork, by Thomas Barron. 9 in. ix + 239 pp. incl. illus. Iliffe & Sons. 1956. 15s.

Sponsored by the British Constructional Steelwork Association and intended as a practical source of reference for engineering students and junior site engineers, this inexpensive book contains several chapters of interest to architects, in particular those dealing with the planning and organisation of the work on the site, and costing and estimating.

Notes and Notices

NOTICES

Ninth General Meeting, Tuesday 18 June 1957 at 6 p.m. The Ninth General Meeting of the Session 1956-57 will be held on Tuesday 18 June 1957 at 6 p.m. for the following purposes:—

To read the Minutes of the Eighth General Meeting held on 21 May 1957; formally to admit new members attending for the first time since their election.

To read the report of the Scrutineers appointed to examine the voting papers for the election of the Council for the Session 1957-58.

A Debate will be held on the subject of 'Systems of Proportion'.

(Light refreshments will be provided before the meeting.)

Session 1956-1957. Minutes IX. At the Seventh General Meeting of the Session 1956-1957 held on Tuesday 9 April 1957 at 6 p.m., Professor J. Leslie Martin, M.A., Ph.D., Vice-President, in the Chair.

The meeting was attended by about 450 members and guests.

The Minutes of the Sixth General Meeting held on Tuesday 5 March 1957 were taken as read, confirmed and signed as correct.

The Chairman spoke on the presentation of the Royal Gold Medal 1957 to Mr. Hugo Alvar Henrik Aalto (H.C.M., Finland), and called upon Sir Howard Robertson, M.C., A.R.A., S.A.D.G., Past President, Professor Basil Spence, O.B.E., A.R.A., A.R.S.A., Hon. Secretary, Mr. Gontran Goulden, T.D. [A], President of the Architectural Association, Mr. T. B. Harper Ellis, A.R.C.A. [A], and Mr. Cedric J. Price [Student], who also spoke.

The Chairman then asked Sir Howard Robertson, M.C., A.R.A., S.A.D.G., Past President, and Sir Edward Maufe, R.A., M.A., LL.D. [F] (two Royal Gold Medallists), to escort Mr. Aalto to the platform.

Having been invested with the Medal, Mr. Aalto expressed his thanks for the honour conferred upon him.

The proceedings closed at 6.50 p.m.

Session 1956-1957. Minutes X. At a Special General Meeting held on Tuesday 7 May 1957 at 6 p.m., Mr. Leonard C. Howitt, M.Arch., Vice-President, in the Chair.

The Chairman explained that the Special General Meeting had been called for the purpose of considering and, if thought fit, approving the Council's recommendation for the acceptance of the offer by Mr. H. G. Wicks, M.C., T.D. [F], of £14,000 for the reversionary interest of the R.I.B.A. under the Will of the late Mr. Walter Alexander Harvey [F], details of which had been set out on page 243 of the April 1957 issue of the JOURNAL.

Professor Basil Spence, O.B.E., A.R.A., A.R.S.A., the Hon. Secretary, then moved the following Resolution:—

'THAT the reversionary interest of the Royal Institute under the Will of Walter Alexander Harvey deceased shall be sold and assigned to Herbert Graham Wicks for the sum of £14,000. AND THAT the Council be and is hereby authorised to affix the Common Seal of the Royal Institute to the Deed necessary to complete the transaction.'

The Resolution, having been moved by Professor Spence and seconded by Mr. E. D. Jefferiss Mathews, O.B.E., A.R.I.C.S., the Hon. Treasurer, was put to the meeting and was passed unanimously.

The Hon. Secretary announced that a Special General Meeting to confirm the Resolution would be held on Tuesday 21 May 1957 at 6 p.m.

The proceedings closed at 6.10 p.m.

Session 1956-1957. Minutes XI. At the One Hundred and Nineteenth Annual General Meeting, held on Tuesday 7 May 1957 at the close of the Special General Meeting.

Mr. Leonard C. Howitt, M.Arch., Vice-President, in the Chair.

The meeting was attended by about 100 members and guests.

The Minutes of the Seventh General Meeting held on Tuesday 9 April 1957 were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the Chairman:—*As Fellows:* A. C. Bennett, E. V. Royle, C. G. Wills. *As Associates:* P. A. Burchett, I. D. Charlton, J. R. Combe, P. G. Comber, E. J. Evans, A. J. Henshaw, B. M. Hodgkinson, Mrs. J. J. Miller.

The Chairman formally presented the report of the Council and Committees for the official year 1956-1957 and moved that the report be received. Professor Basil Spence, O.B.E., A.R.A., A.R.S.A., Hon. Secretary, seconded the motion and a discussion ensued.

The motion having been put from the Chair, it was Resolved that the Report of the Council and Committees for the official year 1956-1957 be received.

On the motion of the Chairman a hearty vote of thanks was passed in favour of Mr. John Ratcliff, O.B.E. [F], and Mr. E. D. Lyons [A] for their services as Honorary Auditors for the past year.

Mr. John Ratcliff, O.B.E. [F], and Mr. David Waterhouse [A] were nominated for election as Honorary Auditors for the ensuing year of office.

The proceedings closed at 7.41 p.m.

Lecture by Mr. E. J. Kahn, of New York, Tuesday 4 June 1957 at 6 p.m. On Tuesday 4 June 1957 at 6 p.m. Mr. Ely Jacques Kahn, F.A.I.A., will deliver a lecture on 'American Office Practice'.

This meeting will be open to members and non-members of the R.I.B.A.

(Light refreshments will be provided before the lecture.)

Council Election 1957-58. Since the issue of the Council Nomination List to members on 23 April, Professor Sir William Graham Holford, M.A., P.P.T.P.I., F.I.L.A. [F], has intimated that he will be unable to accept the Council's nomination as a candidate for election as a Member of the Council 1957-58. His name will not be included, therefore, in the Voting List to be issued to members on 27 May.

R.I.B.A. Conditions of Engagement and Scale of Professional Charges.

As announced in the last issue of the JOURNAL, certain revisions of the edition of the Scale of Charges dated 7 December 1954 will come into operation on 1 June 1957.

Pending a reprint, the existing stock of the 1954 booklet will be issued with revision slips, and copies of the amended booklet are now obtainable on application to the Secretary, R.I.B.A.

Copies of the revision slip are also available for insertion in booklets which members may have on hand.

National Trust for England, Wales and Northern Ireland and National Trust for Scotland. As a corporate subscribing member of the National Trusts the R.I.B.A. has a limited number of membership tickets which entitle holders to admission to properties under the management of the Trusts. Any member intending to visit a property may apply to the Secretary for the use of a ticket, which must be returned to the R.I.B.A. on the conclusion of the visit.

British Architects' Conference, Oxford, 10-13 July 1957. A cordial invitation is extended to all members and Students of the R.I.B.A., the Architectural Association and the Allied Societies to attend the Conference to be held at Oxford from 10 to 13 July. Full details of the programme and the application form were enclosed with the March issue of the JOURNAL. Application forms should be completed and sent to the Secretary, R.I.B.A., as soon as possible but in any case not later than 21 June. Members are again reminded that no hotel bookings can now be accepted by the R.I.B.A. and members must write direct to hotels they select. Reservations at Balliol College, St. John's College and Somerville College are still to be made through the Secretary, R.I.B.A. Details are given in the Conference programme and also appeared in the January and February issues of the JOURNAL.

R.I.B.A. Kalendar 1957-58. The 1957-58 issue of the Kalendar will be published in the autumn and the last day for receiving changes of address for inclusion in that issue is 31 May. This date applies to all members and Students, both in the United Kingdom and overseas.

The R.I.B.A. Appointments Department. Members and Students of the R.I.B.A. and the Allied Societies are reminded that the services of the Institute's Appointments Department are available to employers requiring assistants and to assistants seeking salaried employment.

Employers are invited to notify the Secretary of vacancies in their offices, giving details of the work to be done, the qualifications required and salaries offered.

Assistants should preferably call at the offices of the Appointments Department, but if this is not practicable they should obtain from the Secretary an application form, which when completed and returned to the Institute will enable the Department either to send the applicants particulars of vacancies suitable to their qualifications and requirements or submit their names for vacant posts.

Members and Students seeking official appointments should note that normally these are fully advertised in the weekly professional press, and that therefore the Appointments Department do not as a rule notify them to those on the register.

The Institute will also be glad to advise on most matters concerning architectural employment, including overseas appointments.

The Acceptance of Pupils and Junior Assistants and the Probationership of the R.I.B.A. The Board of Architectural Education have noticed that the practice still persists of members accepting pupils or junior assistants without satisfying themselves that such pupils or junior assistants have reached the necessary standard of general education for the Probationership. Members are reminded that it is most important that they should not take boys or girls into their offices unless they possess one of the qualifications laid down.

A list of the recognised examinations can be obtained on application to the Secretary, R.I.B.A.

Election Void. Under the provisions of By-law 17 the election as Associate of the following has been declared void: Mr. John Hanson.

Disciplinary Action. The name of Mr. William McFarlane Gow, of The Moyle, Newtown-cunningham, County Donegal, Eire, was removed from the register of Students R.I.B.A. by decree of the Council dated 9 April 1957, made pursuant to the Bye-laws.

BOARD OF ARCHITECTURAL EDUCATION

R.I.B.A. Examination in Professional Practice and Practical Experience. The Examination in Professional Practice and Practical Experience was held in London and Edinburgh on 1 and 2 April 1957. Of the 214 candidates examined, 196 passed and 18 were relegated. The successful candidates are as follows:—

Adeyemi: A. A.	Garretts: Walter
Anderson: R. J.	Gifford: H. P.
Anderson: T. R.	Goldthorpe: I. N.
Arden: John	Granelli: Mrs.
Ashcroft: L. T.	M. E. L.
Ashton: Stanley	Graydon: R. T.
Bailey: K. L.	Greenwood: E. H.
Baker: R. A.	Grimdale: J. L.
Ball: G. A.	Grocott: Ronald
Bampton: I. C.	Grover: J. F. P.
Barker: J. F.	Hagell: R. E. J.
Barritt: C. M. H.	Hamilton: A. S.
Beagrie: A. B.	Hampton: A. S.
Belzar: J. A.	Hampton: William
Bishop: Christopher	Harding: K. J.
Blackwell: D. R.	Harrison: J. E. F.
Blair: M. B.	Haslam: Miss M. J.
Bloom: David	Hawthorn: C. C.
Bolt: P. B.	Headley: W. M.
Bourchier: C. D.	Hewetson: W. D.
Bowen: H. T.	Heywood: Geoffrey
Brines: R. D.	Holt: L. A.
Brookes: C. C.	Horner: Miss J. D.
Brown: W. K.	Horwell: A. G.
Burnett: Miss R. M.	Howden: Lionel
Butler: J. J.	Hulton: Miss M. M.
Callar: R. P.	Humphrys: D. E.
Chalmers: G. W. J.	Hutton: G. H.
Chipkin: C. M.	Ingram: L. B.
Cole: A. S.	Jessopp: J. J.
Collins: L. O.	Johnson: H. C.
Cox: A. D.	Jones: J. Brian
Crick: Thomas	Jordan: R. V.
Cross: J. A.	Kavanagh: D. P.
Davies: G. W. J.	Kendrick: A. D.
Dell: Kenneth	Kent: J. S.
Denore: B. B.	Kerslake: T. G.
Dickie: W. H.	King: A. S.
Dixon: J. G.	Kirkham: P. J.
Dixon: R. R.	Knott: John
Dobby: Harry	Kuhnel: Paul
Down: P. A.	Lancon: Roland
Drake: Henry	Lech: Z. M.
Dunphy: T. A.	Lee: J. W.
Durrant: J. L. H.	Leet: Mrs. L. E. M.
Evans: B. F.	Leonard: M. J.
Fawden: Roy	Lewandowski: W. J.
Fielder: D. W.	Longley: J. P.
Fineberg: Basil	McCall: I. K.
Fisher: G. J.	McIntosh: C. J.
Fisher: T. R.	Maclean: C. H.
Fisk: R. A.	Mahimkar: S. G.
Fletcher: R. K.	Marsden: T. B.
Foster: B. C.	Martin: J. B.
Foster: E. F. H.	Mathias: J. W. R.
Foster: M. E.	Mazuch: Bronislaw
Furze: R. C.	Melville: James

Miller: E. J. W.	Sharp: C. R.
Milner: A. R. G.	Short: O. P.
Moor: M. R.	Shuttleworth: David
Morgan: H. E.	Sibley: W. A.
Mukherjee: A. N.	Silcock: Alan
Mynot: F. N.	Sinclair: D. C.
Nandhra: M. S.	Sinclair: H. M.
Nixon: J. D.	Slaski: Z. P.
Nott: C. J.	Sloan: W. J.
Nowak: J. Z.	Smith: Kenneth R.
O Byrne: K. H.	Sparrow: R. C.
O'Muireadhaigh: Padraig	Stent: J. A.
O'Sullivan: Miss B. M.	Susainathan: Anthony
Oldfield: C. S.	Thompson: G. B.
Owen: D. R.	Timpson: J. L.
Oxley: R. M.	Towler: F. J.
Park: A. T.	Town: K. R.
Parker Jones: P. E. J.	Turner: R. Y.
Payne: L. F.	Turners-Grosse, Mrs. H. G.
Pearce: J. R. F.	Vallance: P. J.
Peters: J. S.	Van Breda: B. H.
Petit-Jean: G. M.	Vanderplank: R. E. W.
Pitts: A. Y.	Vaughan: G. W. B.
Plummer: E. M.	Wade: D. V.
Plummer: L. A. D.	Wager: D. J.
Pratt: Robert	Wahnon: Harold
Prior: E. G.	Walker: Mrs. Susan
Radlett: W. F.	Weall: C. V. G.
Randall: C. F. V.	West: K. G.
Rees: R. S. L.	Westrope: K. L.
Reeves: F. G.	Whiting: G. G.
Reeves: J. F.	Wilcox: B. R.
Rhodes: E. D.	Wilkinson: A. J.
Richards: P. M.	Wilkinson: G. T.
Rose: Hugh	Willder: P. S.
Sale: R. W. I.	Wilson: J. L.
Saunders: T. W.	Wimbs: J. B.
Scarbrick: T. A.	Wood: Barrie
Seal: M. T.	Wood: J. P.
Seel: Kenneth	Wood: Kenneth
Serjeant: D. L. T.	Woodford: M. E.
Sewell: R. F.	

R.I.B.A. Prizes and Studentships, 1957-1958. Copies of the R.I.B.A. Prizes and Studentships Pamphlet for 1957-1958 are now available. The pamphlet contains full information about the various Prizes and Studentships, together with, where applicable, the detailed programmes for the competitions. Copies may be obtained from the Secretary, R.I.B.A., price 2s. 9d., inclusive of postage.

R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities. At the R.I.B.A. Examination for the Office of Building Surveyor under Local Authorities held on 24, 25 and 26 April 1957, fourteen candidates presented themselves and the following were successful: John L. Bennett, Alexander S. Bremner, Kenneth W. Codling, Dennis A. Drake, Jack Ferguson, John W. Martin, Edward A. White, Anthony A. Whiting.

COMPETITIONS

Civic Centre for the Borough of Enfield. The Corporation of the Borough of Enfield invite architects registered under the Architects (Registration) Acts and resident in Great Britain or Northern Ireland to submit in competition designs for a new Civic Centre, to include municipal offices, council suite and public assembly halls, to be erected in Enfield.

Assessor: Mr. S. Rowland Pierce, Dist.T.P. [F].
Premiums: £1,000, £750, £250.
Last day for questions: 15 July 1957.
Last day for submitting designs: 18 November 1957.

Conditions may be obtained from the Town Clerk, Public Offices, Enfield, Middlesex.
Deposit: £2 2s. 0d.
Applicants for the conditions must state their registration numbers.

International Competitions. Notification has been received from the International Union of Architects that the conditions of the following competitions have been approved by them:

Development of Berlin Centre. This competition, organised by the Government of the Federal Republic and the Senate of Berlin, is open to all architects living in Europe or born in Europe. It is anonymous and in one stage.

Closing date: 30 November 1957.

The Jury of Assessors includes four non-German architects: Mr. Alvar Aalto, Professor van Eesteren, Dr. Walter Gropius and M. Pierre Vago.

Premiums: One of 30,000 DM; two of 20,000 DM; three of 10,000 DM; and four of 5,000 DM.

Information is obtainable from Senator für Bau und Wohnungswesen, Württembergische-strasse 6, Berlin-Wilmersdorf.

Deposit: 100 DM, to be paid in to Postal Cheque Account No. 58 Berlin West with Landeshauptkasse, Berlin, in favour of HUA B 6100/57 HSt. 199.

Solar House, Arizona. The Association for the Utilization of Solar Energy is proposing to have a house built in Arizona with the intention of encouraging the public's interest in the utilisation of solar energy. The competition is anonymous and in one stage.

Assessors: Signor Pietro Belluschi, Señor Carlos Contreras, Mr. Thomas A. Creighton, Mr. Nathaniel Owings and Mr. James Elmore.
Premiums: \$2,500, \$1,500, \$1,000, and 4th and 5th, \$500 each.

Entry forms can be obtained from the Secretary, R.I.B.A. These must be completed and returned to Mr. James M. Hunter, F.A.I.A., 1126 Spruce Street, Boulder, Colorado, U.S.A.

Last day for receiving entry forms: 1 June 1957.

Last day for receiving designs: 15 August 1957.

COMPETITION RESULTS

New Technical College Buildings, Paisley, Scotland.

1 Messrs. Alison and Hutchison and Partners [F].

2 and 3 shared between the following three competitors:— Messrs. Hutchinson [A], Murta [A], and Hall; Mr. Claus Seligmann [A] in association with Messrs. J. Warren Chalk and Ronald Herron [Students]; Messrs. James Cubitt and Partners [F/A].

International Competition of Ideas Regarding the Surroundings of Cologne Cathedral.

1. Herr Walter Fleck.

2. Herr Karl Band, Professor Rudolf Schwarz and Herr Eugen Weiler.

3. Herr Ferdinand Wagner.

4. Alexander, Freiherr von Branca, Herren Erhard Fischer, Wolfgang Zuleger and Kurt Becker.

Purchases:

Dr. Wilhelm Ohm, Herren Ernst Reimers and Hermann Meier.

Herren H. Schröter and G. Kern.

Professor Wolfgang Rauda, Herr Heinrich Röcke, Dr. Walter Christfreund, Herren Manfred Zumpe, Rolf Peschel and Hans Peter Schmiedel.

Herren Hans Schumacher and G. Hinterleitner.
Herren Fritz Schaller, Hans Schilling, Günter Erler and Otto Reustek.

International Competition: Memorial to Enrico Fermi, Chicago, U.S.A.

1. (\$5,000): Reginald Caywood Knight, Florida.

Three Awards of \$1,000 each: P. Roesch, Hamburg, Germany; J. H. Box, J. R. Pratt and Joanne H. Pratt, Dallas, Texas; Huson Jackson, C. Nivola, V. J. Solomita and Joseph Zalewski, Cambridge, Mass.

Four Awards of \$500 each: E. Ludwig, Düsseldorf, Germany; Jan Lippert and Dr. Eugene Lantzi, Karlsruhe, Germany; L. J. Johnson and Arthur S. Takeuchi, Chicago; Igor Z. Sazevich, D. H. Larsen and E. Garcia-Reyes, San Francisco.

Commended: H. Rimpl, H. Krochmeyer and R. Rathai, Wiesbaden, Germany; G. Perugini, T. Valle and G. Parolini, Rome, Italy.

ALLIED SOCIETIES

Changes of Officers and Addresses

Buckinghamshire Society of Architects. Chairman, Lieut.-Colonel Leslie K. Watson, M.B.E., T.D., A.M.T.P.I. [F], as from 1 July 1957.

Essex, Cambridge and Hertfordshire Society of Architects, Cambridge Chapter. Chairman, J. J. Symes [A]. Hon. Secretary, Gordon Steele [A], 7 Harvey Road, Cambridge. **Hertfordshire Chapter.** Chairman, Clifford E. Culpin [F]; Hon. Secretary, W. Wesley Turney [L]. **Southend Chapter:** Chairman, J. M. Bion [L]. **West Essex Chapter.** Chairman, J. L. Barnard [A].

Alberta Association of Architects. Hon. Secretary, J. B. Bell, 312 Northern Hardware Building, Edmonton, Alberta, Canada.

Ghana Society of Architects. President, G. S. Knight [A]. Hon. Secretary, Kenneth C. Twist [A], P.O. Box 2535, Accra, Ghana, West Africa.

Berks, Bucks and Oxon Architectural Association. **Annual General Meeting and Outing.** On account of petrol rationing the Annual General Meeting was held this year on Saturday 4 May in London and the Borough of Holborn kindly offered the Association hospitality, the meeting being held in their Council Chamber. Mr. Colin Cooper [A], was elected President of the Association for the next year with Mr. D. F. A. Williamson, M.C. [A], as Hon. Secretary. Mr. H. Desmond Hall [A], was re-elected Hon. Treasurer.

Lunch was held at the Kingsley Hotel and the Mayor and Mayoress of Holborn were present. The Mayor made a particularly witty speech afterwards. Mr. Harold Conolly, C.B.E., Vice-President, R.I.B.A., Chairman of the Allied Societies Conference, presented a Jewel to Mr. T. Rayson, F.S.A. [F], which has been newly made for wear by the Chairman of the Oxford Society.

After lunch members and friends visited the new T.U.C. building which is not quite finished. They were welcomed by staff who use the building and saw over nearly all of it. This very enjoyable day was rounded off by tea at the building next door, the Y.W.C.A. designed by Sir Edwin Lutyens, where the Berkshire Society were hosts. After tea those members who still had the energy were able to look round Sir Edwin's building.

Essex, Cambridge and Hertfordshire Society of Architects, Southend-on-Sea and District

Chapter. Annual Dinner and Dance. The annual dinner and dance of the Southend-on-Sea and District Chapter of the Essex, Cambridge and Hertfordshire Society of Architects was held on Saturday 9 March at the Westcliff Hotel, and a record number of 108 members and their guests attended.

Mr. J. M. Bion [L], Chairman of the Chapter, presided and the principal guests were Mr. H. Conolly, C.B.E. Vice-President, R.I.B.A., and County Architect for Essex; Mr. C. H. Aslin, C.B.E. [F], County Architect for Hertfordshire; Mr. P. V. E. Mauger, M.T.P.I. [F], President of the Society; Mr. N. J. L. Johnson, President of the Southend-on-Sea Master Builders Association; and Mr. P. W. Daniell, T.D., F.R.I.C.S., President of the Rural Essex Branch of the Royal Institute of Chartered Surveyors.

York and East Yorkshire Architectural Society. The annual dinner and dance of the York and East Yorkshire Architectural Society was held on Friday 12 April at the Royal Station Hotel, Hull. Mr. Harold D. Priestman [F], President of the Society, was in the Chair.

Among the guests were Mr. Leonard C. Howitt, Vice-President, R.I.B.A., and Mrs. Howitt; Mr. E. D. Gosschalk, President of the Hull Law Society, and Mrs. Gosschalk; Dr. Brynmor Jones, Vice-Chancellor of Hull University, and Mrs. Jones; Mr. N. H. Fowler [F], President of the West Yorkshire Society of Architects, and Mrs. Fowler; Mr. D. McIntyre [F], President of the Northern Architectural Association, and Mrs. McIntyre. Other representatives of the professions and the building industry were also among the guests.

Dr. Brynmor Jones proposed the toast of the R.I.B.A. and Mr. Howitt responded. Mr. Priestman proposed the toast of the Guests and Mr. Gosschalk replied.

GENERAL NOTES

London County Council. Qualifying Examination for the Office of District Surveyor. An examination for certificates of proficiency to perform the duties of district surveyor will be conducted in London in the week commencing 14 October 1957. The minimum age limit for candidates is 25. Possession of this certificate is necessary for appointment to positions as District Surveyor (salary scales £1,500 to £2,900 a year) or as Assistant District Surveyor (salary scale £1,240 to £1,466 a year). Subsequent examinations will be held annually.

Candidates should apply to The Architect to the Council (AR/ED/CTB), County Hall, Westminster Bridge, S.E.1, for application forms and further particulars.

Drawings for Disposal. The R.I.B.A. Library has some surplus drawings for disposal to architectural organisations who may wish to acquire them. They include water colours, mostly of views abroad, by Sir T. G. Jackson; designs for stained glass, vestments, embroidery and some architectural drawings by a 19th-century amateur, the Rev. Ernest Geldart; and architectural designs, topographical sketches and pencil perspectives of some of his houses and gardens, by C. E. Mallows.

Leverhulme Scholarship in Architecture, 1957. The Leverhulme Scholarship, tenable at the Architectural Association School of Architecture, London, value £2,000, which includes payment of fees and maintenance for five years, has been awarded this year to Mr. D. R. Pearce (Haberdashers' Aske's Hampstead School), of 42 The Drive, Harrow, Middlesex.

Truscon Travelling Scholarship. The Trussed Concrete Steel Co. Ltd., of Lower Marsh, London, S.E.1, offer a Travelling Scholarship of £125 to enable an Associate of the R.I.B.A. to undertake a Continental tour of about three weeks' duration. The winner will be accompanied by a member of the company's technical staff awarded a similar scholarship, and they will jointly study reinforced concrete work on the continent of Europe with particular reference to the collaboration between architect and engineer. A joint report will be prepared, the use and copyright of which will remain at the disposal of the Trussed Concrete Steel Co. Ltd.

Applicants must be under 35 years of age on 1 April 1957. No form of entry is required but applications should systematically cover the following particulars: (a) Age. (b) Architectural education and any distinctions. (c) Present employment and general practical experience. (d) Evidence of special interest in the use of reinforced concrete in contemporary architecture. (e) Languages spoken and previous travel abroad. (f) The names of two referees.

The selection will be made by a Committee consisting of Mr. C. S. White [F], Mr. G. Grenfell Baines, A.M.T.P.I. [A], and a Director of the Trussed Concrete Steel Co. Ltd. The Committee will prepare a short list based on written applications and will interview candidates on this list.

Applications should be received by the Secretary, The Trussed Concrete Steel Co. Ltd., Lower Marsh, London, S.E.1, by 30 June 1957.

Joint Committee on Structural Concrete. Two visits to Berlin, September 1957. The Joint Committee on Structural Concrete, with the support of the R.I.B.A., is organising two visits to Berlin in connection with the architectural exhibition being held there this year. The first will be from 13 to 18 September and the second from 18 to 23 September. The number taking part in each visit will be limited to 80.

The tentative programme for both visits is as follows: *First day:* Arrival and dinner, with talk to the party by a representative of the City of Berlin Building Department, who will describe the work to be inspected. (Plans will be on view.) *Second day:* Visit to new buildings (office, industrial, domestic, and hotels) under construction in various parts of the city, and the urban motorway. Tour of the interesting parts of Berlin, including the Eastern Sector. *Third day:* Visit to the Corbusier flats and to 'The City of To-morrow'. *Fourth day:* Visit to the 'Interbau' Exhibition, flats, churches, and other buildings. *Fifth day:* Visit to Building Exhibition. (Modern building methods.) Afternoon free. *Sixth day:* Return journey.

Further particulars may be obtained from the Cement and Concrete Association, 52 Grosvenor Gardens, London, S.W.1.

National Inspection Council for Electrical Installation Contracting. The National Inspection Council for Electrical Installation Contracting, which was formed with the object of ensuring that a safe and proper standard of work should be maintained by electrical contractors, is about to issue the first edition of its Roll of Approved Electrical Installation Contractors. It contains the names of 3,418 firms, including Electricity Boards, who have given proof of their high standard of workmanship.

A copy of the Roll is being sent by the National Inspection Council to all firms of architects. If, however, any member who requires a copy of the Roll for his work has not received one, he should communicate with Brigadier W. G. S. Thompson, O.B.E., Chief

Executive Officer and Secretary of the National Inspection Council at 13 Victoria Street, London, S.W.1, when a copy will be sent to him.

Publication of the Sydney University Extension Board's Symposium on Structure and Architecture. The Department of Architectural Science last year conducted, in association with the Sydney University Extension Board, a post-graduate symposium on the relation between structure and architecture, and are now preparing the proceedings for publication. These will include the text of the papers, a selection from the discussion and written contributions. The book will contain approximately 200 pages and 60 illustrations.

The Symposium brought together senior representatives of most of the architectural and structural engineering firms in Sydney, and caused a lively discussion.

Copies of the proceedings may be ordered direct from the publishers, Academic Press Pty. Limited, Box 4251, G.P.O., Sydney.

West Suffolk Architectural Award. An announcement on the award has been issued by Mr. James M. Gorst, County Planning Officer, West Suffolk.

The objects of the county award are: (i) To encourage good local architecture and building. (ii) To stimulate public interest in good building and foster a higher appreciation of design and craftsmanship. (iii) To encourage developers to employ the services of an architect.

The scope of the award is intended to cover all new buildings designed by an architect and completed in the County of West Suffolk during a calendar year other than buildings erected for or by a central or local government authority. Two classes of buildings will be eligible: (1) Residential buildings. (2) Other buildings, including industrial and commercial buildings.

Professor J. Leslie Martin, Vice-President, R.I.B.A., has been nominated Assessor for the next award. The award will be made in the form of a certificate to the successful architect, and the builder responsible. The Suffolk Association of Architects have indicated their willingness to be associated with the design of the certificates. The first award shall apply to any architect-designed building in either or both of the categories mentioned, completed during the calendar year commencing 1 January 1953 and ending 31 December 1953.

All architects responsible for the design of any building erected during a calendar year, together with the builder responsible, will be notified of the details of the competition.

National Display Exhibition. The National Display Exhibition was held from 8 to 11 April at the New Horticultural Hall, Westminster. At this exhibition, Mr. Reginald H. Treleaven [F] was the designer of the stand for The Expanded Metal Co. Ltd. which won first prize for the best design and construction.

R.I.B.A. Cricket Club. The Club's fixtures are as follows: Wednesday 22 May v. *The London Master Builders Association*, at Wanstead. Wednesday 12 June v. *The Architectural Association*, at Wimbledon. Wednesday 26 June v. *The Vitruvians*, at North Middlesex C.C. Wednesday 10 July v. *Blue Circle C.C.*, at Bromley. Wednesday 28 August v. *Club Cricket Conference*, at Wimbledon. Wednesday 11 September v. *Royal Institution of Chartered Surveyors*, at Chesham.

New members are welcome, and further particulars may be obtained from the Hon. Secretary, Mr. D. L. Robinson [A], of Messrs.

Ronald Ward & Partners, 29 Chesham Place, London, S.W.1.

Bartlett School of Architecture announce that a short course in **The Preservation and Restoration of Historic Buildings** will be held from 12-15 June 1957. Lectures will be held at the College, and there will be visits to important buildings at present being restored. The visits will be conducted by the architects concerned.

The course is open to practising architects and advanced students. For full particulars apply to: The Secretary, Bartlett School of Architecture, University College, Gower Street, London, W.C.1.

Membership Lists

ELECTION: 7 MAY 1957

The following candidates for membership were elected on 7 May 1957.

AS HON. CORRESPONDING MEMBER (1)

Cummings: George Bain, Binghampton, New York, U.S.A.

AS FELLOWS (4)

Gray: Ronald Peter, M.B.E., A.M.T.P.I. [A 1942], Whitehaven.

Pyne: Henry John Everett [A 1946], Bedford.

Wilson: Alan Herbert, Dipl.Arch. (Leeds) [A 1950], Doncaster.

and the following Licentiate who is qualified under Section IV, Clause 4 (c) (ii) of the Supplemental Charter of 1925:—

Elliott: Albert Victor.

AS ASSOCIATES (10)

Beatson: Ronald Guthrie Senior, B.Arch. (Auck., N.Z.), Auckland, New Zealand.

Broadbent: Michael George, Dip.Arch.(Sheffield), Preston.

Langley: Philip Charles, Dip.Arch.(Birm.), Philadelphia, Pennsylvania, U.S.A.

Lloyd: Peter Leonard, Dip.Arch.(Birm.), Birmingham.

McCaw: George Alexander, M.A.(Cantab.), D.A.(Edin.), Dublin.

McPherson: Norman Welland, B.Arch.(Sydney), Sydney, N.S.W., Australia.

Pathare: Ravindra Shamrao.

Riley: Peter, B.A.(Arch.) (Manchester), Northwich, Cheshire.

Roberts: (Mrs.) Teresa, B.A.(Arch.) (Manchester), Northampton.

Welbank: John Michael, B.A.(Arch.) (Lond.).

ELECTION: 18 JUNE 1957

An election of candidates for membership will take place on 18 June 1957. The names and addresses of the candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Monday 3 June 1957.

The names following the applicant's address are those of his proposers.

AS FELLOWS (13)

Austin-Smith: (Mrs.) Inette Lotte Edith, A.A.Dipl. [A 1947], 29, Sackville Street, W.1; 10, Priory Walk, S.W.10. C. G. Stillman, G. R. Dawbarn, Michael Patrick.

Austin-Smith: John Michael, M.C., T.D., A.A.Dipl. [A 1947], 29, Sackville Street, W.1; 10, Priory Walk, S.W.10. A. G. Sheppard Fidler, Bryan Westwood, Michael Patrick.

Capon: Charles Kenneth, A.A.Dipl. [A 1941], Architects' Co-Partnership, 44, Charlotte Street, W.1; Wildwood, North End, N.W.3. R. F. Jordan, C. H. Aslin, Frederick Gibberd.

Cocke: Peter Louis, A.A.Dipl. [A 1939], Architects' Co-Partnership, 44, Charlotte Street, W.1; 2, Bacons Lane, Highgate, N.6. R. F. Jordan, C. H. Aslin, Frederick Gibberd.

Cooke-Yarborough: Michael Humfrey, A.A. Dipl. [A 1940], Architects' Co-Partnership, 44, Charlotte Street, W.1; 7, St. Anne's Close, Highgate West Hill, N.6. R. F. Jordan, C. H. Aslin, Frederick Gibberd.

Cox: Anthony Wakefield, A.A.Dipl. [A 1940], Architects' Co-Partnership, 44, Charlotte Street, W.1; 54, Southwood Lane, Highgate, N.6. R. F. Jordan, C. H. Aslin, Frederick Gibberd.

De Syllas: Leo M., A.A.Dipl. [A 1941], Architects' Co-Partnership, 44, Charlotte Street, W.1; St. Julian's, Underriver, Sevenoaks, Kent. R. F. Jordan, C. H. Aslin, Frederick Gibberd.

Grice: John Michael, A.A.Dipl. [A 1948], Architects' Co-Partnership, 44, Charlotte Street, W.1; 2, St. Anne's Close, Highgate West Hill, N.6. R. F. Jordan, C. H. Aslin, Frederick Gibberd.

Hickton: Edwin Harry, J.P. [A 1934], Ashley House, Hatherton Road, Walsall, Staffs; 'Noddy Park', Hobs Hole Lane, Aldridge, Staffs. Herbert Jackson, Reginald Edmonds, G. A. G. Miller.

Madeley: Robert George [A 1931], Ashley House, Hatherton Road, Walsall, Staffs; 'Woodleigh', 10, Foley Road, Streetly, Staffs. Herbert Jackson, Reginald Edmonds, G. A. G. Miller.

Rosenthal: H. Werner [A 1948], 34, Hanway Street, W.1; 'Greystead', Quill Hall Lane, Amersham, Bucks. F. Chippindale, E. C. Kent, S. T. Walker.

Salt: Geoffrey Wyndham [A 1926], Ashley House, Hatherton Road, Walsall, Staffs; 32, Featherston Road, Streetly, Staffs. Herbert Jackson, Reginald Edmonds, G. A. G. Miller.

Shanks: Donald Allen, Dipl.Arch.(Northern Polytechnic) [A 1948], Education Architect's Department, Academy Street, Belfast; 1, Castlehill Drive, Stormont, Belfast. F. H. Crossley, R. S. Wilshire, T. E. Scott.

AS ASSOCIATES (173)

The name of a school or schools after a candidate's name indicates the passing of a recognised course.

Adeyemi: Adeniyi Adedokun, (Final), 38, Castleton Road, Goodmayes, Essex. Sir Alfred Bossom, A. G. MacDonald, J. S. Walkden.

Anderson: Robert James, M.C.D., B.Arch. (L'pool) (Liverpool Sch. of Arch., Univ. of Liverpool), 11, Percy Street, Liverpool, 8. Prof. H. M. Wright, Prof. R. Gardner-Medwin, R. M. Robertson.

Ashcroft: Leslie Thomas, (Special Final), 53, Northeast Drive, Hove 4, Sussex. Geoffrey Ridley, S. H. Tiltman, F. F. Howard.

Ashton: Stanley, (Special Final), 7, Rosslyn Road, Bath, Somerset. W. H. Watkins, A. S. Gray, Kenneth Nealon.

Bailey: Keith Latham, (Final), 15, Parkville Road, Prestwich, Lancs. Applying for nomination by the Council under Bye-law 3 (d).

Baker: Ronald Arthur, (Special Final), 83, Leylands Road, Burgess Hill, Sussex. Applying for nomination by the Council under Bye-law 3 (d).

Ball: Gordon Ainsworth, (Final), 'Ainsworth', Boundary Lane, Congleton, Cheshire. C. Knapper, Clifton Edwards, D. C. Campbell.

Bampton: Ian Charles, (Final), 4, Barmouth Road, S.W.18. Denis Clarke Hall, H. C. Powell, J. S. Walkden.

Barker: John Ferry, (Special Final), 5, Granville Drive, Forest Hall, Newcastle upon Tyne, 12. Robert Mauchlen, L. S. Stanley, G. A. Crockett.

Barritt: Claude Michael Henry, Dip.Arch. (Sheffield) (Univ. of Sheffield, Dept. of Arch.), 10, Shakespeare Road, Lexden, Colchester, Essex. Prof. Stephen Welsh, D. W. Clark, H. B. Leighton.

Beagrie: Alexander Barrie, A.A.Dipl.(Arch. Assoc. (London): Sch. of Arch.), 84, Grange-mouth Road, Radford, Coventry. J. T. Alliston, R. F. Jordan, D. L. Lasdun.

Belzar: Joseph Alfred, (Special Final), 121, Marlborough Park Avenue, Sidcup, Kent. C. J. Burnett, T. E. Scott, S. F. Burley.

Bishop: Christopher, B.A.(Cantab.), (Final), Little Chargrove, Shurdington, Cheltenham. W. P. Dyson, Peter Falconer, H. F. Trew.

Blackwell: David Roy, (Final), 80, Longhill Road, Catford, S.E.6. J. S. Walkden, H. V. Lobb, H. M. Lidbetter.

Blair: Marshall Bennett, (Special Final), 1, Rosemead Drive, Oadby, Leicestershire. H. Bramhill, Frank Risdon, H. B. Challen.

Bloom: David, (Final), 139, Park Lane, W.1. Paul Nightingale, T. H. Birks, George Whitby.

Bolt: Peter Bracey, (Final), 40, Delamere Road, Southsea, Hants. E. G. Newnum, Ronald Ward, G. J. Jolly.

Bouchier: Clive Denzil, (Final), 3, York Avenue, Hove 2, Sussex. K. E. Black, S. H. Tiltman, F. F. Howard.

Bowen: Hayden Trevelyan, (Final), 25, Pownall Street, Macclesfield, Cheshire. Prof. R. A. Cordingley, E. S. Benson, Dr. Thomas Howarth.

Brines: Robert Dobson, (Final), 1, Grove Court, Grove Road, Surbiton, Surrey. Applying for nomination by the Council under Bye-law 3 (d).

Brookes: Clive Colin, (Final), 'High View', The Mount, Knockholt, Nr. Sevenoaks, Kent. J. S. Walkden, J. S. Foster, Peter Goodridge.

Brown: William Kellett, Dip.Arch.(The Polytechnic) (The Poly, Regent Street, London: Sch. of Arch.), Flat No. 2, 81, South Hill Park, Hampstead Heath, N.W.3. J. S. Walkden, W. L. Twigg, L. G. Creed.

Butler: Jonathan James, (Special Final), 30, Hamilton Road, Cockfosters, Barnet. Thomas Bilbow, K. J. H. Seymour, H. Lidbetter.

Callear: Reginald Peter, (Special Final), 170, Birches Road, Codsall, Wolverhampton. A. Douglas Jones, T. M. Ashford, G. A. G. Miller.

Carter: Derek, Dipl.Arch.(Leeds) (Leeds Sch. of Arch.), 103, Fitzroy Road, Bradford Moor, Bradford, 3. F. Chippindale, N. H. Fowler, W. H. King.

Cole: Arthur Sidney, (Final), 22, Hilston Avenue, Halesowen, Worcestershire. J. T. Lewis, S. J. Clewer, Seymour Harris.

Collins: Lancelot Owen, (Special Final), 'Greenways', 90, Hillcroft Crescent, Oxhey, Nr. Watford, Herts. C. G. Stillman, R. T. Grumant, Eric Pettengell.

Cox: Alan Dudley, (Final), 32, Brookville Park, Blackrock, Dublin. W. A. Maguire, Wilfrid Cantwell, Vincent Kelly.

Crick: Thomas, (Final), The Deanery, Rochester, Kent. Applying for nomination by the Council under Bye-law 3 (d).

Cross: Jack Anthony, (Final), 18, Egham Avenue, Exeter. H. B. Rowe, John Bennett, H. M. R. Drury.

Davies: Gordon William John, (Special Final), 5, Park Way, Marymead, Stevenage, Herts. Applying for nomination by the Council under Bye-law 3 (d).

Dell: Kenneth, (Final), 383, Warrington Road, 'The Oak', Culcheth, nr. Warrington. T. L. Viney, B. A. Miller, R. R. Young.

Denore: Brian Benedict, (Final), 132, Demesne Road, Wallington, Surrey. Edwin Rice, G. R. Dawbarn, G. S. Rhodes.

Dickie: William Holmes, (Final), 30, Muir Street, Motherwell. L. D. Paterson, L. W. Hutson, Stuart Clink.

Dixon: John Gurney, (Special Final), 'The Brambles', Breach Avenue, Southbourne, Nr. Chichester, Sussex. R. G. Cox, E. L. Gale, H. W. Hobbiss.

Down: Peter Ashford, M.A.(Cantab.), (Final), 47, Boscombe Overcliff Drive, Bournemouth, Hants. D. W. Roberts, W. P. Dyson, Peter Bicknell.

Dunphy: Thomas Austin, (Final), 5, Vernon Park, Clontarf, Dublin. Raymond McGrath, J. O'H. Hughes, Wilfrid Cantwell.

Durrant: James Leo Harold (The Poly, Regent Street, London; Sch. of Arch.), 117, Spring Grove Crescent, Hounslow, Middlesex. J. S. Walkden, David Jenkin, Eric Lyons.

Evans: Brian Francis, (Final), 12, Mersey Road, Aigburth, Liverpool, 17. H. A. Clark, W. T. Harrison, P. S. P. Morter.

Fawden: Roy, (Final), 46, Catherine Place, Westminster, S.W.1. Frank Booth, Hubert Bennett, A. W. Glover.

Fielder: David William, (Special Final), Messrs. Elliott, Cox & Partners, 172, Buckingham Palace Road, S.W.1. A. V. J. Kirkham, A. H. Devereux, J. Barrington-Baker.

Fineberg: Basil, (Final), 'Overdale', 5, Frenchwood Knoll, Preston, Lancs. Cecil Stewart, G. N. Hill, R. A. Williams.

Fisher: Terence Rex, (Special Final), 'The Malt House', East End, North Leigh, Witney, Oxon. T. H. Longstaff, W. A. Lea, G. R. Hutton.

Fisk: Roy Alwyn, (Final), 49, Waverley Road, Westwood, Swinton, Lancs. L. C. Howitt, Cecil Stewart, Edgar Sutcliffe.

Fletcher: Richard Kevin, (Final), 3, West Cliff Terrace, Preston, Lancs. John Watt, F. N. Pinder, G. N. Hill.

Foster: Bruce Chisholm, (Final), 7, Evelyn Way, Wallington, Surrey. E. E. Somake, G. R. Dawbarn, Paul Nightingale.

Foster: Eric Frank Harvey, (Special Final), 18, Chepstow Villas, W.11. Applying for nomination by the Council under Bye-law 3 (d).

Foster: Michael Patrick Eade, (Final), 74, Westville Road, Thames Ditton, Surrey. Applying for nomination by the Council under Bye-law 3 (d).

Furze: Rodney Cresswell, (Final), 'Fullerwick House', Mancroft Road, Aley Green, Luton, Bedfordshire. C. J. Tomkins, L. G. Hannaford, J. B. Noble.

Garretts: Walter, (Special Final), 44, Commercial Road, E.1. P. W. Adams, T. A. Eaton, R. L. Banks.

Gifford: Henry Peter, (Final), c/o Wilkieson, 12, Ruthven Street, Glasgow, W.2. F. R. Wylie, G. F. Shanks, Walter Underwood.

Goldthorpe: Ian Norman, (Final), 'Rosedene', 6, St. Andrew's Mount, Church Lane, Kirk Ella, East Yorks. J. P. Taylor, W. G. Wilson, Allanson Hick.

Gorvin: John Willson, (Final), 407, Banbury Road, Oxford. Reginald Cave, David Booth, M. Alexander.

Granelli: (Mrs.) Mary Elizabeth Lambert, (Final), 80, Woodland Road, Northfield, Birmingham 31. A. G. Sheppard Fidler, J. R. Sheridan-Shedden, A. Douglas Jones.

Graydon: Roger Tinsdale, (Final), 11, Rothbury Gardens, Leeds 16. N. H. Fowler, Noel Pyman, G. Davy.

Greenwood: Eric Henry, (Special Final), 67, Douglas Road, Acocks Green, Birmingham, 27. R. G. Cox, E. L. Gale, E. A. Day.

Grimsdale: John Leslie, (Final), 162, Penny-mead, Mark Hall South, Harlow, Essex. Frederick Gibberd, R. M. V. Messenger, R. T. Boutall.

Grocott: Ronald, (Special Final), 'The Grove', 24, Stoneyfields Avenue, Milton, Stoke-on-Trent, Staffs. Clifton Edwards, D. C. Campbell, J. R. Piggott.

Grover: John Frederick Percy, (Special Final), 6, Husseywell Crescent, Hayes, Bromley, Kent. T. G. Crump, J. K. Hicks, E. C. Scherrer.

Hagell: Ralph Edward Jefferys, (Special Final), 19, Sutton Court, Chiswick, W.4. Edwin Rice, Arthur Korn, A. M. Gear.

Hamilton: Alfred Stanley, (Final), 'Fairland House', Hambro Hill, Rayleigh, Essex. Roff Marsh, E. R. Collister, Denis Senior.

Hampton: Alan Stacey, (Final), 'The Ferns', St. Martins Road, Caerphilly, Glam. L. R. Gower, Dr. T. A. Lloyd, G. A. Crockett.

Hampton: William, (Final), 9, Claremont Street, Newcastle upon Tyne, 2. Applying for nomination by the Council under Bye-law 3 (d).

Harding: Kenneth John, (Final), 102, Parklands Road, Chichester, Sussex. F. R. Steele, C. G. Stillman, Frederick Gibberd.

Harrison: John Edward Frederick, (Final), 22, Sickert Close, St. Julians, Newport, Mon. A. G. Sheppard Fidler, Johnson Blackett, R. G. Morgan.

Haslam: (Miss) Margaret Jill, (Final), 15, Sea Mills Lane, Stoke Bishop, Bristol, 9. T. H. B. Burrough, F. L. Hannam, H. C. Inglis.

Hawthorn: Charles Campbell, (Special Final), 45, Kildonan Road, Grappenhall, Nr. Warrington, Lancs. T. L. Viney, Cecil Stewart, Geoffrey Owen.

Headley: William Mills, (Special Final), 306, Pinner Road, North Harrow, Middlesex. Cyril Walker, R. Vaughan, Basil Hughes.

Hewlett: (Miss) Margaret Mary, Dip.Arch. (Manchester) (Victoria Univ. Manchester: Sch. of Arch.), 14, Waterford Road, Oxtou, Birkenhead. Gerald Sanville, Prof. R. A. Cordingley, T. N. Mitchell.

Heywood: Geoffrey, (Final), Barn Hey, Dickens Lane, Poynton, Cheshire. Cecil Stewart, L. C. Howitt, Edgar Sutcliffe.

Holt: Leslie Allan, (Final), 13, Mainwood Road, Timperley, Altrincham, Cheshire. Cecil Stewart, L. C. Howitt, E. S. Benson.

Horner: (Miss) June Diane, (Final), 'Cedar Tiles', Red Rice Road, Upper Clatford, Andover, Hants. Robert Potter, A. C. Townsend, B. H. Dale.

Horwell: Alan Gordon, (Special Final), 69, Woodmansterne Road, Streatham, S.W.16. C. J. Jerram, H. K. Wakeford, A. L. Luke.

Howden: Lionel, Dip.Arch.(Leics.) (Leicester Coll. of Art and Tech. Sch. of Arch.), 135a, Ashby Road, Hinckley, Leicestershire. T. A. Collins, S. Penn Smith, Albert Herbert.

Hulton: (Miss) Margaret McCall, (Special Final), 'Glencairn', Fulwood Avenue, Tarleton, Nr. Preston. Halstead Best, P. G. Fairhurst, F. J. M. Ormrod.

Humphrys: Dennis Eric, (Special Final), 102, Eton Road, Orpington, Kent. A. E. Miller, Hubert Bennett, J. Holman.

Hutton: Geoffrey Hewland, (Final), 'The Bungalow', Elmhurst, Lichfield, Staffs. Alexander Potter, G. A. G. Miller, J. D. Tetlow.

Ingram: Leslie Brian, (Special Final), 5, Moffats Lane, Brookmans Park, Herts. R. K. Pullen, Kenneth Dalgliesh, A. G. Nisbet.

Jessopp: Ian John, (Final), 8, Seymour Road, Gloucester. Colonel N. H. Waller, H. S. Davis, H. F. Trew.

Johnson: Henry Charles, (Special Final), 1, Kearsney Abbey Villas, Temple Ewell, Dover. Sidney Loweth, Prof. H. O. Corfiato, J. E. Jackson.

Jones: John Brian, (Final), 'Little Parmoor Cottage', Rockwell End, Hambledon, Henley-on-Thames, Oxon. H. C. Constantine, C. H. MacKeith, Cecil Stewart.

Kavanagh: Dermot Patrick, (Special Final), 33, Shanliss Drive, Santry, Dublin, Ireland. Raymond McGrath, J. O'H. Hughes, Wilfrid Cantwell.

Kelly: Simon John, B.Arch.(N.U.I., Dublin) (Univ. Coll., Dublin, Ireland, Sch. of Arch.), 41, Eyre Square, Galway. Applying for nomination by the Council under Bye-law 3 (d).

Kendrick: Arthur Dudley, (Special Final), 90, Queen's Drive, N.4. Applying for nomination by the Council under Bye-law 3 (d).

Kerslake: Thomas George, (Final), 1A, Brymore Avenue, Prestbury, Cheltenham. B. I. Day, Kenneth Nealon, Lieut.-Col. G. W. H. Ryland.

King: Alfred Sydney, (Special Final), 67, Eden Park Avenue, Beckenham, Kent. T. E. Scott, C. G. Bath, S. F. Burley.

Knott: John, (Final), 46, Redland Court Road, Bristol, 6. Kenneth Nealon, F. L. Hannam, C. G. Skinner.

Lancon: Roland, (Final), 8, New Square, Lincoln's Inn, W.C.2. Bernard Engle, Laurence King, W. F. B. Lovett.

Lee: John Wasdale, (Final), St. Mary's, Forches Cross, Newton Abbot, Devon. Prof. H. O. Corfiato, John Bennett, J. F. Smith.

Leet: (Mrs.) Lyndall Elisabeth Marion, (Final), 'Alma House', 334, Holywood Road, Belfast, Northern Ireland. T. H. B. Burrough, F. L. Hannam, B. I. Day.

Leonard: Michael John, (Final), 37, Chepstow Road, Leicester. H. H. Powell, Kenneth Bayes, Denis Clarke Hall.

Longley: John Peter, (Final), 'Ackworth', Hillary Road, Penenden Heath, Maidstone, Kent. E. T. A. Smith, R. T. Green, Leonard McDermott.

McCall: Ian Kelso, (Final), 65, Mote Hill Road, Gallowhill, Paisley, Scotland. Prof. W. J. Smith, James Taylor, J. S. Maitland.

Mahimkar: Suryakant Govindrao, (Final), 2, Parliament Hill, Hampstead, N.W.3. H. A. N. Medd and applying for nomination by the Council under Bye-law 3 (d).

Marsden: Thornton Brian, (Final), 63, Bentley Avenue, Slattsacks, Rochdale, Lancs. Cecil Stewart, J. M. Smith, Edgar Sutcliffe.

Mathias: Jon Walter Rodney, (Final), 26, Westbourne Terrace, W.2. Elie Mayorcas, R. L. Banks, T. A. Eaton.

Melville: James, A.R.I.C.S., (Special Final), 8, Garth Close, Morden, Surrey. Paul Nightingale, Arthur Korn, Dr. R. Herz.

Miller: Edward Joseph William, (Final), 35, Cedars Road, Beckenham, Kent. T. E. Scott, D. Nightingale, S. F. Burley.

Milner: Arthur Robert Garfield, (Special Final), The Baulks, Sawston, Cambridge. C. G. Pinfold, J. O. Griffin, L. L. T. Slood.

Morgan: Harry Edmund, (Special Final), 20, Connaught Road, Hornchurch, Essex. P. J. Mabley, C. S. Jaques, Maurice Sanders.

Mukherjee: Amiya Nath, (Special Final), 83, Moreland Street, E.C.1. C. H. Stableford, W. H. Gunton, E. N. Clifton.

Mynot: Frederick Noel, (Final), 256, Mill Road, Deal, Kent. Applying for nomination by the Council under Bye-law 3 (d).

Nandhra: Mohinder Singh, (Final), 34, Queens Avenue, Finchley, N.3. A. C. Townsend and applying for nomination by the Council under Bye-law 3 (d).

Needham: Philip Rudd, (Final), 21, Forest Road, Warsop, Mansfield, Notts. L. S. Stanley, W. Richardson White, F. W. Tempest.

Nixon: John David, (Final), Willow Farm, Winchester Road, Blaby, Leics. Albert Herbert, J. H. L. Owen, K. D. Edwards.

Nott: Colin James, (Final), 'Dilwara', Bampton, Devon. C. G. Toy, Kenneth Peacock, D. M. Hodges.

O Byrne: Kevin Hubert, (Special Final), 1, Leeson Park Avenue, Appian Way, Dublin. Prof. J. V. Downes, Simon Leonard, W. A. Maguire.

Oldfield: Colin Selwin, (Special Final), 11, Townley Avenue, Southowram, Halifax. Norman Culley, C. Sunderland, N. H. Fowler.

Owen: Derrick Roy, (Special Final), 'Timber Ville', Oldfield Way, Heswall. W. H. G. Dobie, W. L. Lowe, F. J. M. Ormrod.

Oxley: Ronald Mark, (Special Final), 191, Lyon Park Avenue, Wembley, Middlesex. Norman Keep and applying for nomination by the Council under Bye-law 3 (d).

Parker Jones: Peter Edwin John, (Final), 'Hillside', 17, Ridgebourne Road, Shrewsbury. C. W. McIntosh, Herbert Thearle, B. A. Miller.

Payne: Leonard Frank, (Special Final), 413, Old Walsall Road, Great Barr, Birmingham 22a. F. Goldsbrough, H. G. Wicks, S. N. Cooke.

Pearce: John Roger Felton, (Final), 'Thursfield House', Buerton, Nr. Audlem, Cheshire. Clifton Edwards, J. R. Piggott, D. C. Campbell.

Peters: John Soley, (Final), Honer Farm House, South Mundam, Chichester, Sussex. S. S. Careless, F. J. Lander, S. H. J. Roth.

Petit-Jean: Gerard Maurice, (Special Final), 109, Moffats Lane, Brookmans Park, Hatfield, Herts. Miss J. E. Townsend, T. E. Scott, A. Beasley.

Pitts: Alan Yate, (Special Final), 14, Sadler Road, Brownhills, Nr. Walsall, Staffs. Applying for nomination by the Council under Bye-law 3 (d).

Plummer: Eric Munro, (Special Final), 33, Ripley Road, Seven Kings, Essex. H. Lidbetter, J. V. Hamilton, L. C. Varcoe.

Plummer: Leslie Alfred Derek, (Final), Church Street, Sible Hedingham, Nr. Halstead, Essex. E. H. Firmin, Sidney Kaye, D. L. Solomon.

Prior: Edward George, (Special Final), 65, Homefield Road, Hemel Hempstead, Herts. T. E. Scott, S. F. Burley, E. Playne.

Quinn: Patrick James, B.Arch.(N.U.I., Dublin) (Univ. Coll., Dublin, Ireland: Sch. of Arch.), 60, Hazelbrook Road, Terenure, Dublin. W. A. Maguire, Prof. J. V. Downes, Raymond McGrath.

Radlett: William Francis, (Special Final), 11, Almond Way, Bromley, Kent. Paul Nightingale, Edwin Rice, Dr. R. Herz.

Randall: Cecil Frederick Victor, (Special Final), 20, Noel Green, Burgess Hill, Sussex. T. E. Scott, C. G. Bath, S. F. Burley.

Rees: Ronald Sterling Lloyd, (Final), 'Tal-y-fan', 1, Merrowcroft, Guildford, Surrey. C. P. Williams, E. A. S. Houfe, Sir Albert Richardson.

Reeves: Francis George, (Final), 115, Newlands Park, Sydenham, S.E.26. Sidney Kaye, D. L. Solomon, C. G. Bath.

Reilly: James Anthony, B.Arch.(N.U.I., Dublin) (Univ. Coll., Dublin, Ireland: Sch. of Arch.), 'Roselea', Galtrim Road, Bray, Co. Wicklow, Ireland. W. A. Maguire, Prof. J. V. Downes, Vincent Kelly.

Rhodes: Ephraim Dennis, (Special Final), 7, Church Lane, Madingley, Cambridge. W. E. Marston, A. C. Crook, Hubert Bennett.

Richards: Peter Miles, (Final), 'Commerce House', Biggleswade, Beds. S. V. Goodman, W. G. Walmsley, Peter Dunham.

Rose: Hugh, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 15, Grange Crescent, Leam Lane Estate, Heworth, Gateshead, 10. Esme Gordon, W. G. Dey, G. H. Gray.

Sale: Roy Walter Iven, (Final), 'Westmacott', 2, Everest Rise, Billericay, Essex. T. E. Scott, C. G. Bath, L. M. Gotch.

Saunders: Thomas Walter, (Final), 15, Byron Mansions, Corbets Tey Road, Upminster, Essex. Frank Risdon, A. H. Ley, A. L. Luke.

Scarlsbrick: Thomas Anthony, (Special Final), 134, Damson Lane, Solihull, Warwickshire. Seymour Harris, Selby Clewer, R. A. Cooksey.

Seal: Mervyn Thomas, (Final), Lyn Combe Coach-House, Lyncombe Vale Road, Bath, Somerset. Miss G. M. J. Taylor (Mrs. Gerrard), Humphrey Goldsmith, H. D. Roberts.

Seaton: Eric, (Special Final), 7, Ballycairn Road, Coleraine, Co. Derry, N. Ireland. F. W. Honeywell, H. W. Weedon, A. L. Hall.

Seel: Kenneth, (Special Final), 5, Greenville Avenue, Lower Wortley, Leeds, 12. S. C. Punchard, A. V. Banks, H. W. E. Lindo.

Sewell: Ronald Frederick, (Special Final), 'Greytles', Shelves Way, Tadworth, Surrey. J. O. Stevens, L. P. Murphy, Z. Jacobson.

Sharp: Charles Richard, (Special Final), c/o Messrs. L. W. Barnard & Partners, 13, Imperial Square, Cheltenham, Glos. Lieut.-Col. G. W. H. Ryland, Lieut.-Col. Eric Cole, S. E. Urwin.

Short: Orville Peter, (Final), 'Rame', 79, London Road, Shrewsbury. W. G. Davies, A. G. Chant, C. W. McIntosh.

Shuttleworth: David, (Special Final), 12b, Junction Road, Norton, Stockton-on-Tees. Prof. W. B. Edwards, Bruce Allsopp, J. H. Napper.

Sibley: William Aubrey, (Final), 70a, Watling Street, Radlett, Herts. H. G. Ross, G. B. A. Williams, C. J. Cable.

Silcock: Alan, (Special Final), 21, Windsor Road, Wanstead, E.11. A. G. Alexander, A. C. Hopkinson, James Cannell.

Sinclair: Derek Cornwall, (Final), 98, Victoria Road, Horley, Surrey. G. A. Jellicoe, H. H. Ford, E. D. Mills.

Sinclair: Harold Marrison, (Special Final), 'Woodend', Strathblane Road, Milngavie, Glasgow. A. B. Campbell, Ninian Johnston, J. A. Coia.

Sloan: William John, (Final), 30, Park Terrace, East Kilbride, Lanarkshire. Prof. W. J. Smith, J. M. Cowie, L. D. Paterson.

Smith: Kenneth Raymond, (Final), 159, Barclay Street, Leicester. T. A. Collins, S. Penn Smith, J. H. L. Owen.

Sparr: Reginald Charles, (Special Final), 31, Kingshurst Road, Lee, S.E.12. Vernon Aldridge and applying for nomination by the Council under Bye-law 3 (d).

Stent: John Arthur, (Special Final), 40, Thurlston Avenue, Morden, Surrey. L. L. T. Slood, G. A. Crockett, L. S. Stanley.

Susainathan: Anthony, (Special Final), 47, Norland Square, W.11. Arthur Korn, Ronald Ward, Dr. R. Herz.

Thompson: George Bulwer, (Special Final), 10, Claydon Grove, Gorleston-on-Sea, Norfolk. J. B. Noble, E. H. Skipper, C. J. Tomkins.

Timpson: John Leonard, (Final), c/o Messrs. Ellery Anderson, Roiser & Falconer, 'Imperial House', Stroud, Glos. Peter Falconer, H. F. Trew, S. S. Careless.

Tower: Frederick John, (Special Final), 16, Deverell Grove, Wavertree, Liverpool 15. Dr. Ronald Bradbury, W. L. Lowe, W. H. G. Dobie.

Turner: Raymond Yates, (Final), 40, Station Road, Heckington, Lincolnshire. A. Douglas Jones, J. W. H. Barnes, Cecil Stewart.

Vallance: Peter John, (Final), 9, Harman Avenue, Woodford Green, Essex. J. S. Lacey, E. Playne, Alick Low.

Vanderplank: Richard Edward Walter, M.A. (Cantab.), Dip.Arch.(Birm.) (Birmingham Sch. of Arch.), 11, Cambridge Road, Twickenham, Middlesex. J. H. Jones, Kenneth Peacock, D. M. Hodges.

Vaughan: George William Brian, (Final), 'Bragan', Tilstock, Whitchurch, Shropshire. Cecil Stewart, L. C. Howitt, E. S. Benson.

Wade: Dennis Victor, (Final), 4, Rockhurst Drive, Eastbourne, Sussex. Alwyn Underdown, R. W. Stevenson, C. H. Murray.

Wager: David Jeremy, Dip.Arch.(Birm.) (Birmingham Sch. of Arch.), 1, Albert Terrace Mews, N.W.1. A. Douglas Jones, T. M. Ashford, H. H. Powell.

Wahnon: Harold Moses, (Special Final), 174, Beverley Drive, Edgware, Middlesex. J. S. Walkden, F. H. Herrmann, James Melvin.

Walker: (Mrs.) Susan, Dip.Arch.(The Polytechnic) (The Poly., Regent Street, London: Sch. of Arch.), 16, West Cromwell Road, S.W.5. J. S. Walkden, Philip Powell, Hidalgo Moya.

Weall: Charles Valentine Graham, (Special Final), 'Wychways', 345, Springfield Road, Chelmsford, Essex. A. R. Dannatt, Harold Conolly, W. D. Key.

Webster: George Fraser Simpson, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.), 21, Boswall Drive, Edinburgh, 5. J. R. McKay, L. G. MacDougall, T. W. Marwick.

Webster: Gerald, (Special Final), 15, Barnfield, Epping, Essex. H. G. Huckle, R. O. Hall, and

applying for nomination by the Council under Bye-law 3 (d).

West: Kenneth George, (Final), 102, Douglas Road, Herne Bay, Kent. Applying for nomination by the Council under Bye-law 3 (d).

Westrope: Keith Leslie, (Final), 'Rose Cottage', Steeple Bumpstead, Haverhill, Suffolk. Applying for nomination by the Council under Bye-law 3 (d).

Whiting: Geoffrey Gilbert, (Final), 4, Portland Place, Ashbourne Road, Leek, Staffs. C. Knapper, Clifton Edwards, J. R. Piggott.

Wilcox: Barry Ronald, (Special Final), 57, Bhylls Lane, Merry Hill, Wolverhampton. A. Douglas Jones, T. M. Ashford, G. A. G. Miller.

Wilkinson: Anthony John, M.A.(Cantab.), (Final), 'Little Dormers', Houghton, Huntingdonshire. W. P. Dyson, David Roberts, J. M. Wheeler.

Wilkinson: George Thomas, (Special Final), 'Westview', 147, Pootown Road, Whitby, Ellesmere Port, Wirral, Cheshire. R. H. Kelly, F. J. M. Ormrod, Bertram Ashworth.

Wilson: John Leslie, (Special Final), 52, Midanbury Lane, Bitterne Park, Southampton. A. C. Townsend, R. A. Phillips, J. J. Hill.

Wimbs: John Beckett, (Final), 69, Swyncombe Avenue, Ealing, W.5. R. N. Wakelin, Lieut.-Col. O. Campbell-Jones, Thomas Bilbow.

Wood: Barrie, (Final), St. Mary's Clyffe, Woodbrook Road, Alderley Edge, Cheshire. L. C. Howitt, Cecil Stewart, W. C. Young.

Wood: John Peter, (Final), 10, Holland Road, Wallasey, Cheshire. W. H. G. Dobie, P. S. P. Morter, K. W. Gearey.

Wood: Kenneth, (Final), 'Whitley', 15, Hawthorn Road, Stowheath, Wolverhampton, Staffs. J. S. Harris, S. J. Clewer, L. J. Multon.

Woodford: Michael Eaton, (Special Final), 141, Bennerley Road, S.W.11. J. S. Walkden, E. D. Mills, B. H. Peake.

ELECTION 8 OCTOBER 1957

An election of candidates for membership will take place on 8 October 1957. The names and addresses of the overseas candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Friday 16 August 1957.

The names following the applicant's address are those of his proposers.

AS FELLOW (1)

Ritchie: John Archibald, A.A.Dipl. [4 1930], Via Toscana 48, Rome, Italy; 123, Mahatma Gandhi Road, Bombay 1, India; 631, Muhammad House, McLeod Road, Karachi, Pakistan. M. K. Jadhav, J. C. Nilgaria, Hope Bagenal.

AS ASSOCIATES (11)

The names of a school, or schools, after a candidate's name indicates the passing of a recognised course.

Brennall: Athol William, (Passed a qualifying Exam. approved by the R.A.I.A.), 445, Upper Edward Street, Brisbane, Australia. C. Fulton, Prof. R. P. Cummings, T. B. F. Gargett.

Butler: Anthony Brian, Dipl.Arch.(Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.), 15, Elvina Gardens, Toronto, Ontario, Canada. T. E. Scott, C. G. Bath, S. F. Burley.

Clare: Keith Antony Woolley, (Final), c/o Messrs. Mathieson & Martin, P.O. Box 661, Salisbury, Southern Rhodesia. W. F. Hendry, W. D. Cathcart, Cecil Stewart.

Crockett: Eric Edward Charles, (Passed a qualifying Exam. approved by the I.S.A.A.), c/o Provincial Works Office, P.O. Box 613, Pietermaritzburg, Natal, S. Africa. N. O. Jackson and applying for nomination by the Council under Bye-law 3 (d).

Dobby: Harry, (Special Final), c/o Public Works Department, Aden Colony, S. Arabia. Applying for nomination by the Council under Bye-law 3 (d).

Duffield: Peter, Dip.Arch.(The Polytechnic) (The Poly., Regent Street, London, Sch. of Arch.), 6, Thompson Street, Elizabeth South, South Australia. C. H. Fitch, D. J. Cole, J. S. Walkden.

Earles: Noel Leadman, Dip.Arch.(Auck., N.Z.) (Passed a qualifying Exam. approved by the N.Z.I.A.), c/o South Auckland Education Board, Private Bag, Hamilton, New Zealand. Prof. C. R. Knight, Prof. A. C. Light and the President and Hon. Secretary of the N.Z.I.A. under Bye-law 3 (a).

Holtzhausen: Derek Michael, B.Arch.(C.T.) (Passed a qualifying Exam. approved by the I.S.A.A.), 'Westbury', Westbury Circus, Wynberg, Cape, S. Africa. Prof. L. W. T. White, O. Pryce Lewis, F. L. Sturrock.

Mason: George Rex (Passed a qualifying Exam. approved by the N.Z.I.A.), 15, Bassett Road, Remuera, Auckland, New Zealand. Prof. C. R. Knight, Prof. A. C. Light and the President and Hon. Secretary of the N.Z.I.A. under Bye-law 3 (a).

Powell: Owen Edmund, B.Arch.(C.T.) (Passed a qualifying Exam. approved by the I.S.A.A.), 109, Anlaby House, Baker Avenue, Salisbury, Southern Rhodesia. Prof. L. W. T. White and applying for nomination by the Council under Bye-law 3 (d).

Pritchard: Dudley Ross, B.Arch.(Sydney) (Passed a qualifying Exam. approved by the R.A.I.A.), 151, Awaba Street, Mosman, Sydney, New South Wales, Australia. T. A. L. Concannon, J. M. Fraser, K. A. Brundle.

Obituaries

Professor Sir Patrick Abercrombie [F], died on 23 March 1957, aged 77.

Leslie Patrick Abercrombie, the son of William Abercrombie—a Fifeshire man who practised as a stockbroker in Manchester, was one of a family of nine. He was educated at Locker's Park preparatory school, Hemel Hempstead, and at Uppingham.

His ambition was to be an architect and at about the age of 20 he became apprenticed to a Manchester architect. Three years later he went to the office of Sir Arnold Thornely, in Liverpool, where he remained a further three years. Professor C. H. Reilly was at that time Head of the Liverpool University School of Architecture and Abercrombie became junior lecturer and studio instructor under him. In 1910, when the Liverpool Chair of Civic Design was founded by Lord Leverhulme, Abercrombie became lecturer and research Fellow under Professor Stanley D. Adshead, a post which enabled him to visit Paris, Vienna, Brussels and Berlin.

In 1915 Abercrombie succeeded Professor Adshead in the Chair at Liverpool, where he remained until 1935 when he became Professor

of Town Planning at University College, London. He retired from the position in 1946, and was made Emeritus Professor of Town Planning, London University. From 1936 he was also consultant architect to the Department of Health for Scotland.

Among his literary activities was the editorship of the TOWN PLANNING REVIEW, the first journal in Great Britain to be devoted to this subject, and he contributed several articles to the first few volumes. He had also produced 'The Preservation of Rural England' in 1926 and 'Town and Country Planning' in 1933.

Professor Abercrombie's chief works include the following: first premium, in collaboration with Sydney A. Kelly, in an international competition for the replanning of Dublin, in 1913; schemes for Sheffield, 1924, East Kent, in collaboration with John Archibald, 1925, Doncaster, Bristol and Bath, 1930, Sheffield, 1931, and Cumberland, with Sydney Kelly, 1932; a plan for a new civic centre at Plymouth; County of London Plan, 1943, in collaboration with J. H. Forshaw; the Greater London Plan in 1944; plans for the development of Plymouth, Edinburgh, Hull, Warwick, Bournemouth, the Clyde, and West Midlands regions; reports for the Colonial Office on the planning of Hong Kong and Cyprus; advice to the Emperor of Ethiopia on the reconstruction of Addis Ababa; and a plan for the new University of Ceylon, with Professor A. C. Holliday.

Professor Abercrombie was co-founder and later chairman of the Council for the Preservation of Rural England; he also served as chairman of the Housing Centre and as president of the Town Planning Institute, and was the first president of the International Union of Architects. He was a member of the Royal Fine Arts Commission, the Royal Commission on the Location of Industry, and the National Trust. He became an Associate of the R.I.B.A. in 1915, Fellow in 1925, Vice-President from 1937-39, served on several Committees and Boards of the Institute, and was awarded the R.I.B.A. Distinction in Town Planning. His honours include the award of the Howard Memorial Medal in 1943, the R.I.B.A. Royal Gold Medal in 1946, and the Gold Medal of the American Institute of Architects in 1949. He was Officier de la Légion d'Honneur, Officier de l'Ordre de la Couronne of Belgium, and Hon. Fellow of the American Institute of Architects. He was knighted in 1945.

Mr. J. H. Forshaw [F] writes:

'Leslie Patrick Abercrombie died at his home in Aston Tirrold, Berkshire, on 23 March. He had achieved a distinguished international reputation in town and country planning and planners and students throughout the world will mourn his passing. From 1915 to 1935 he had held the Chair of Civic Design in the University of Liverpool, and from 1935 to 1946 the Chair of Town Planning in the University of London. His work in England culminated in the preparation of a series of new plans for London, Edinburgh, and Plymouth and other cities which had been extensively damaged or partially destroyed by bombing. Abroad he had been consulted by several State and municipal authorities in the preparation of important planning projects. His outstanding work at home and overseas had long been admired and acknowledged, and in his later years the highest honours and professional awards had been bestowed upon him.

'Abercrombie's early studies as a Research Fellow at Liverpool had been wide and his interests manifold, and few architects had greater knowledge of the history and growth of the principal cities of Europe, or indeed of the world. Abercrombie worked in close association with Reilly and Adshead during the

early and important period of the Liverpool School and at a time when the influence of the Department of Civic Design had already excited attention throughout the country. Out of these years came his great interest in the planned use of land which later found expression in several regional schemes.

'Abercrombie's early reputation was established when his scheme for the replanning of Dublin won the international competition in 1913. It was a notable achievement at the age of 34. I remember not only did the Dubliners claim Patrick as an Irishman, but also the American Press referred to the return of "Saint Patrick".

'His regional planning proposals for various large areas of England and Wales—differing in the extremes of fine landscape and coastline to the blemishes of industrial development in town and valley—took account of complex problems, both indigenous and artificial. For example, his schemes for Cumbria, Kent, Bristol and Bath, and Stratford-upon-Avon (in collaboration with his brother, Lascelles) as well as that for the new Doncaster coalfield and the Civic Survey of Sheffield, reveal a versatile judgment in problems of expansion and of amelioration. All these schemes pointed to the need for a policy which today, 30 years afterwards, is still insufficiently effective.

'These extensive and diligent studies of geographical units, diversified in use and physical characteristics, led him with an increasing urge to campaign for measures to safeguard areas of natural beauty. It was due mainly to his efforts that the Council for the Preservation of Rural England was successfully established, and no one person inspired and influenced more the movement towards the establishment of the National Parks.

'Between the wars, Abercrombie's advice had been sought increasingly from near and far; and his move to London in 1935 aided the widening of his international connections until the outbreak of war in 1939. Throughout the autumn of 1940, the blitz upon London increased in severity until the damage by bombing and fire made clear the need for reconstruction on a large scale. By the spring of 1941, the destruction had reached such serious dimensions that the London County Council was invited by Lord Reith to prepare a redevelopment plan and "to plan boldly". The Report was completed in 1943 and Lord Latham, in his foreword to the "County of London Plan", refers to the "great opportunity" for imaginative planning and adds: "Most of us cannot expect to see more than the beginnings." We can agree, I think, that Abercrombie lived to see more than some of the beginnings but whether, to use other memorable words of the same period, we are at the "end of the beginning" of London's redevelopment is less clear. I know Abercrombie regretted that little progress had been made towards seeking a solution of London's traffic. He stressed frequently that opportunities have already diminished owing to misplaced reconstruction in the post-war years.

'In the "Greater London Plan 1944", Abercrombie put forward his thesis for decentralisation and dealt with the problem of the large overspill from the Metropolitan area. The New Towns policy which developed out of this comprehensive study embodied many of his earlier theories of regional planning, in relation to land use, controlled industrial development, and the preservation of green and agricultural belts.

'Abercrombie was zealous for a great "renewal"; he was a reformer in the sense that he sought change by Reformation rather than by Revolution. His long pleading for landscape protection had perhaps become misunderstood,

for latterly he had felt that some regarded his viewpoint as that of the mere preservationist. His convictions were firmly held and the independent attitude which he often maintained, as reflected in the Minority Report of the Royal Commission on the Location of Industry, was courageous and inspiring.

'Of Abercrombie's activities overseas others can speak with more intimate knowledge: before the war he was engaged with Clifford Holliday on important work in Palestine and Ceylon, and in the early post-war period he had been a consultant for developments in Bagdad and in Hong Kong. More recently his plan for the development of Addis Ababa had received the approval of the Emperor. The influence of his teaching was world-wide for his students filled important posts in all five continents. In the less accessible countries also his work was respected as that of a Master; indeed, inquiries concerning his latest schemes were made to me in Moscow and Leningrad during a visit to Russia in 1955.

'In the week before his death I had occasion to inquire of Pat's whereabouts; still in harness, he was working in Winchester upon an area adjoining the Cathedral. It seems a strange coincidence that this planner of capital cities should close his long career advising on improvements in the first capital of our ancient realm. He had told me previously of this small work and of the delight it was giving him.

'Abercrombie's whole life had been one long mission for the furtherance of causes dear to his heart. Throughout his activities the qualities of selflessness and charitable thought stood foremost in all his dealings and he conformed, in success and disappointment, to the highest loyalties of life and service. His gay and sparkling idiom made him a lively platform speaker, and his continuing energy and indomitable spirit indicated outwardly little of the tragedy he had suffered by the grievous loss of his adored wife in 1942. He retained to the end—strengthened, we can be sure, by the love of a devoted daughter—much of the flame and enthusiasm which made up his rare personality.

'Patrick Abercrombie has gone to rest in the place he loved and had grown to know well with his wife and family: an island retreat which never failed to renew his strength and from where he could see the Wirral coast, the hills of Cumbria, Snowdonia, and all around the seas he has crossed and recrossed in journeyings often. Of all his honours and distinctions none delighted him more than the Légion d'Honneur which the French Ambassador presented to him last year. Abercrombie loved France and this recognition of his life's work was a source of much gratification. No one who heard him speak at the opening of the recent exhibition "Nouveau Visage de la France" could doubt his admiration of the French and their imaginative architecture. And so may he depart "chevalier sans peur et sans reproche".

William Harrison Cowlshaw, M.B.E. [Retd. F], died on 17 March 1957, aged 87.

Mr. Cowlshaw received his training under Stockdale Harrison [A] of Leicester and Balfour and Turner of London. Dr. Charles Holden [F], with whom Mr. Cowlshaw became so closely associated, writes:

'With the death of my old friend Harry Cowlshaw there passed from our midst an architect of great sensibility and feeling, a designer, craftsman, scribe—a man deeply interested in the arts and crafts movement as well as in the practice of his profession.

'We were brought together in the early years of the First World War when we were both working in the London Ambulance Brigade of the British Red Cross and we had many

opportunities of comparing our experiences and interests during the long hours of waiting for our turn of duty.

'Cowlshaw also formed part of that little band of architects and others who patrolled St. Paul's Cathedral during air attack—a service which formed the prototype of a similar band in the Second World War and which then saved the Cathedral from the holocaust around it.

'My partner, Lionel Pearson, had been given a commission under the Imperial War Graves Commission and when my appointment as a Principal Architect in that organization followed those of Lutyens, Blomfield and Herbert Baker, an architectural staff was set up by the British Red Cross with headquarters in France and a group of young draughtsmen was formed under the direction of Cowlshaw to implement our various designs.

'In this work in France Cowlshaw remained after hostilities ended, until about 1930 when he felt it was time to pick up the threads again at home. Setting himself up in our building at Hyde Park Corner he was able to carry on his own work and soon to help us on some of ours, in particular the large Sliema Hospital at Malta. Before long he was standing in more closely with the organization of much of the building work of the first contracts for the new University in Bloomsbury. His continued energies in helping forward this project even to within two years of his death were a remarkable example of devotion to his profession and to the claims of friendship.

'His own work at Letchworth before the First World War will be remembered especially for "The Cloisters." He had in those days a great interest in pottery and abandoned wheel and kiln only at the outbreak of the war. He was associated with Edward Johnston, when he changed from his medical training to calligraphy and lettering, and indeed gave him much encouragement in the new skills. His own work as a scribe included experimental research on writers' materials with William Morris.'

Henry Foster King [F] died on 20 November 1956, aged 71.

Mr. D. R. Chowdhari [A], of Messrs. Gregson, Batley and King, where Mr. King was senior partner, writes:

'Mr. King came out to India in 1911 and joined the firm of Messrs. C. F. Stephens & Co. as an assistant. He started private practice in Bombay in 1914 with Mr. T. S. Gregson [A] and two years later Mr. Claude Batley [A] joined the partnership under the style of Gregson, Batley and King. Mr. King remained a partner with the firm until his death.

'Mr. King had a very successful practice and was responsible for the design of many outstanding buildings, among which may be mentioned the Bombay Central Station, Breach Candy Baths, the National Defence Academy at Khadakvasla, Poona, and several offices and residential buildings in Bombay.

'Among his clientele were many ruling princes. The most noteworthy was the late Maharaja of Bikaner, who commissioned him to design a High Court, Museum, Hospital, etc., at Bikaner. During the Golden Jubilee celebrations of His Highness's rule, Mr. King took a prominent part in decorating the city of Bikaner.

'He was actively interested in architectural education in India and was for some time a lecturer in the Sir J. J. School of Art, Bombay. He also once acted as its Director.

'Mr. King held a unique place in the history of the Indian Institute of Architects. Leader of a small band of architectural students who had in 1917 passed the then Advanced Examina-

tion in Architecture in Bombay, he was mainly responsible for the founding of the Architectural Students' Association in that year. When that body grew into the Bombay Architectural Association, he was fittingly its first elected President in 1923. During his second Presidential term in 1929 he was once more instrumental in ushering in a new phase—the fully fledged Indian Institute of Architects. He had the distinction of being the first member on the Institute's register. He again occupied the Presidential Chair from 1945–46 and represented the Institute on the R.I.B.A. Council.

'Fond of the sea and especially of the Bombay harbour, which he knew so well, he rendered his service as an Hon. Lieutenant R.I.N.V.R.

'The profession has lost a keen and able architect.'

Leslie Thomas Moore [F] died on 29 January 1957, aged 73.

Mr. F. Milton Harvey [F] writes:
'Many will regret the passing of Leslie T. Moore. Born in a Cathedral Close in 1883, son of a Canon of Norwich, a loyal and devout layman, he was steeped in the tradition of work and worship of the Church of England. Architect to the Dean and Chapter of Peterborough for 36 years, he lavished loving care on the preservation of that famous cathedral.

'Trained originally in Fitzroy Square, serving articles with the late Colonel Robert Edis, and after with the late Mr. Temple Moore [F], whose son-in-law, partner and successor he became, his sensitive work will survive in many parish churches throughout the country. His work, including many war memorials, was not confined to buildings alone, and many churches and Lady-Chapels have been enriched by altars and reredoses, roods and hangings, chalices and crosses, ornaments and fittings, designed by him.

'He was one of a diminishing band of brother-architects who have striven, through the aftermath of two world wars, to restore and maintain unbroken the continuity of English tradition in both building and worship.

'He was a member of the Architects Panel of the Church Building Society; member of the Advisory Panel of Specialist Architects, nominated by the Historic Churches Preservation Trust, for the Dioceses of London, Chelmsford and Southwark; Surveyor to the Society of Apothecaries; a Freeman of the City of London; and for many years Architect to Bridlington Priory, St. Mary's, Beverley, All Saints, Tooting, and Hampstead Parish Church.

'With many contemporaries in the Artists Rifles he was swept into the 1914–18 war, in

which he served with distinction in the Royal Engineers, being awarded the Military Cross. Apart from his ecclesiastical work, his active interest included the design of hospitals and cottage hospitals.

'His passing terminated tenancy of Chambers in Gray's Inn extending over 50 years.'

Amongst the numerous church work for which Mr. Moore was responsible must be mentioned the churches of All Saints, Dormanstown, Redcar, St. Leonard's, Norwood and St. Hilda's, Sheffield; St. Wilfrid's Lady Chapel, Harrogate; church halls for St. Francis of Assisi, Solihull, at Croxley Green, Herts, and St. Wilfrid's, Harrogate; restoration work at St. Mary's, Beverley; and war memorials at St. Michael's, Coventry, and East Lexham, Norfolk. There was a village hall at Farcotton, Northants, and his hospital work included the Princess Elizabeth Orthopaedic and a nurses' home for the Royal Devon and Exeter Hospital, and hospitals at Melton Mowbray, Pinner and Selby; and cottage hospitals at Axminster, Sidmouth, Teignmouth and Wellington.

Professor Arthur Fred Wickenden [Retd. F] died on 23 September 1956, aged 77.

Professor Wickenden received his training with a Southborough firm of architects and served on the staff of the Council Surveyors of Hull, Croydon and Ilford. In 1914 he became assistant to the City Surveyor of Birmingham, and after war service in the R.A.F. and the R.N.V.R. he was appointed Lecturer in Civil Engineering at City and Guilds College, Imperial College, London. In 1926 he became Professor of Architecture at Fouad I University (now Cairo University), Giza. Professor Wickenden retired in 1948, though he returned to give a series of lectures at Fouad I University as a specialist visiting professor during the next two years.

During the 1920s he had been Technical Editor of the Architectural and Building Supplement of the OVERSEAS DAILY MAIL and a contributor to the BUILDER and other publications. On two occasions he had had pictures hung at the Royal Academy, and had published a number of songs including a selection published in the United States in 1930 under the pseudonym 'Anton Mariette.' He had also been concerned in the building of the sports pavilion at Wembley for Imperial College.

He was a Fellow of the Royal Institute of Chartered Surveyors and an Associate Member of the Institution of Civil Engineers and had been awarded the Egyptian honour of Commander of the Order of the Nile.

Notes from the Minutes of the Council

MEETING HELD ON 9 APRIL 1957

Appointment of R.I.B.A. Representatives.

(a) Lord Chancellor's Committee to review Law on Rights of Light in relation to War Damaged Sites. Percy V. Burnett [F], nominated for appointment by the Lord Chancellor. (b) Board of Building Education. R. E. Enthoven [F], re-appointed. (c) Institute of Materials Handling: Discussion, 16 April 1957. E. D. Jefferiss Mathews [F]. (d) London County Council: London Building Acts Advisory Committee.

C. S. White [F]. (e) Ministry of Works Advisory Council on Building Research and Development. Thomas Mitchell, M.B.E. [A], nominated in place of Sir Lancelot Keay [F]. Professor Robert Matthew, C.B.E. [F], C. G. Stillman [F], both re-nominated. (Appointments are made by the Minister of Works.) (f) Tenth International Hospital Congress: Lisbon, 3–7 June, 1957. Arthur Roberts [A], R.I.B.A. delegate. (g) College of Advanced Technology, Cardiff: Governing Body. Alexander J. Gordon [A]. (h) Coal Utilisation Council: Conference on the Delivery

and Storage of Solid Fuel in Flats. Clifford C. Culpin [F]. (i) *Professional Classes Aid Council*. Julian Leathart [F] in place of Michael Tapper [F], resigned. (k) *National House-Builders Registration Council*. Miss J. G. Ledebor [F], re-appointed. (l) *Codes of Practice Committees and B.S.I. Committees*: (i) *Code of Practice on the Storage and Removal of Refuse from Residential Property (Houses, Flats and Small Shops)*. Mrs. E. S. Locke [A]. (ii) *Bituminous Products Industry Standards Committee, BMB/-*. C. M. Cuthill [A] in place of K. C. Evans [A], resigned. (iii) *Code of Practice for the Protection of Buildings against Water from the Ground*. D. W. Aldred [F].

The Honorary Corresponding Membership. Mr. George Bain Cummings, past President of the American Institute of Architects, has accepted the Council's nomination for election as an Honorary Corresponding Member.

The Royal Scottish Academy. The congratulations of the Council were conveyed to Mr. Thomas Beveridge [F] (Glasgow) on his election as an Associate of the Royal Scottish Academy.

R.I.B.A. Architecture Bronze Medal: the Berks, Bucks and Oxon Architectural Association. Formal approval was given to the award made by the jury of the Berks, Bucks and Oxon Architectural Association of the R.I.B.A. Architecture Bronze Medal in the area of the Association for the four-year period ending 31 December 1956 in favour of the Admission Unit, Fair Mile Hospital, near Wallingford, Berkshire, designed by Messrs. Powell and Moya [FF].

Membership. The following members were elected: as Honorary Fellows 1; as Honorary Corresponding Members 1; as Fellows 8; as Associates 58.

Students. 65 Probationers were elected as Students.

Applications for Election. Applications for election were approved as follows: *Election 7 May 1957*: as Honorary Corresponding Members 1; as Fellows 4; as Associates 6.

Applications for Reinstatement. The following applications were approved: as Associates: Francis James Barton, Huntley Alexander Warton-Woods.

Resignations. The following resignations were accepted with regret: Brian Bagnall [A], Max Dembitzer [A], Miss Josephine Mary Lamb [A], Graham Benjamin Murray [A], Phillip Lawson Vautier [A].

Applications for Transfer to Retired Members' Class under Bye-law 15. The following applications were approved: as Retired Fellows: Frederick James Lenton, George Willie Smith, William Charles Waymouth; as Retired Associates: Henry Munro Cautley, John Moulding Clarke, The Rev. Claude John Wilson Messent; as Retired Licentiate: William Henry Dongworth, James Jennings, John Begg Levie, Harold Bernard Northcote Nixon.

Obituary. The Secretary reported with regret the death of the following members: Professor Joseph Plecnik [H.C.M.], Professor Sir Leslie Patrick Abercrombie [F], Claud Russell Corfield [F], Bertram Hugh Parkin Haigh [F], John Raworth Hill [F], William Herbert Hobday [F], Horace Raymond Chantler [Retd. F], William Harrison Cowlshaw [Retd. F], William Glen Dobie [Retd. F], Ernest Walter Pearson [Retd. F], Ernest Marston Powers [Retd. F], David James Moir [A], William Vincent Morgan [A], John Herbert Parker [A], John Allbutt Baskerville [Retd. A], Willie Josiah Freeman [Retd. A],

Henry Ingle Potter [Retd. A], Joseph Summersgill Smith [Retd. A], Albert Victor Cotton [L], John Robinson Forbes [L], John Gillespie [L], Ernest Tom Howard [L], Wyndham Rhys Morgan [L], Harry Percival Sanders [L], Leonard Ralph Tarrant [L], John Charles Parker Whettam [L], Colonel Frederick Charles Temple [Retd. L].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

Members' Column

This column is reserved for notices of changes of address, partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. Gerald B. Dix [A] has taken up the appointment of Planning Officer to the Singapore Improvement Trust. His address is now c/o Singapore Improvement Trust, P.O. Box 702, Upper Pickering Street, Singapore.

Mr. Roy D. Lyons [A] has been appointed to the post of Architect, Schools Building Unit, for St. Kitts-Nevis-Anguilla. His address will be c/o Schools Building Unit, Basseterre, St. Kitts, British West Indies, where he will be pleased to receive trade catalogues.

Mr. Stanley P. Merer [A] has left the service of the Public Works Department, Kuala Lumpur, to take up the appointment of Deputy Architect, Central Electricity Board, P.O. Box 1006, Kuala Lumpur, Federation of Malaya.

Mr. George G. Pace, F.S.A. [F], has been appointed Consultant Architect to Peterborough Cathedral.

Mr. J. A. Potter [F], Head of Hull School of Architecture since 1948, has been appointed Professor of Architecture, Khartoum University.

Mr. Benjamin Prince [A] has been appointed to the staff of the Architectural and Planning Division, Central Mortgage and Housing Corporation, Head Office, Ottawa, Ontario, Canada.

Mr. John Steel, A.M.T.P.I. [A], has been appointed Director of Planning to the City of Regina, Saskatchewan, Canada.

Mr. Peter Stephens [A], formerly chief assistant to Messrs. Poulton & Freeman [FF], has accepted an appointment with the Commonwealth of Australia. His new address is c/o Dept. of Works, Currie Street, Adelaide, S. Australia.

Mr. G. W. Wilkie [A] has joined the West Indies staff of Messrs. Mence & Moore [A/L] as Planning Consultant and Architect at their Georgetown office, British Guiana.

PRACTICES AND PARTNERSHIPS

Mr. John S. Boyd [A], of 104 West George Street, Glasgow, has retired from practice owing to ill-health. The firm of D. Thomson & Menzies, of which he was sole partner, will be carried on by the late Mr. D. Thomson's grandson, Mr. John D. M. Thomson [Student] of Messrs. Weddell & Thomson, from their offices at 3 Lyndoch Street, Glasgow, C.3.

Mr. Derek Buckler [F] has started practice under the title of **Derek Buckler and Partners**

at 14 Manor Road, Chatham (Chatham 2453), and also at 3 Old Road West, Gravesend (Gravesend 6466).

Mr. L. W. Carpenter [A] has begun private practice at The Rylands, Lydney Lane, Bream, Glos. (Whitcroft 249), where he will be pleased to receive trade catalogues.

Mr. Geoffrey J. Cash [A] has begun practice at 3 Wards End, Halifax, where he will be pleased to receive trade catalogues.

Mr. John B. Diamond [A] and **Mr. Peter Hodgkinson [A]** of Diamond and Hodgkinson have taken into partnership **Mr. Frank Briggs [A]** in their London office, which has moved to 50 Baker Street, W.1 (HUNter 0489), and **Mr. Roy Fellows [A]** in their Wolverhampton office, which is now at 31 Queen Street (Wolverhampton 21404). The practice will in future be known as **Diamond, Hodgkinson and Partners**.

Mr. P. Garland Fairhurst [F] and **Mr. Harry M. Fairhurst [A]**, of the firm of Messrs. Harry S. Fairhurst & Son, Chancery Chambers, 55 Brown Street, Manchester, 2 (Deansgate 6886), have taken into partnership **Mr. Ian Garland Fairhurst [A]**, **Mr. Patrick H. Barry [A]** and **Mr. Denis G. Thornley [A]**. The name of the firm will remain unchanged.

Mr. J. H. R. Freeborn [F] and **Mr. Keith Aitken [A]** have terminated their partnership by mutual consent as from 25 March 1957. Mr. Freeborn's address will now be Cherwell Lodge, Water Eaton Road, Oxford. Mr. Aitken will continue to practise at 30 Fitzroy Square, London, W.1 (Euston 2039 and 5632), where he will be joined by **Mr. Laurie Cadell [A]** who is moving his office from 12 Thayer Street, London, W.1.

Mr. Arthur W. Johns [A] has begun practice at 62 Harpur Street, Bedford, where he will be pleased to receive trade catalogues.

Mr. Sergei Kadleigh [A], Reader in Architecture, Royal College of Art, and **Mr. William Whitfield, A.M.T.P.I. [A]**, are now in partnership as Consultants under the style of **Kadleigh and Whitfield**. Their architectural and civic development consultancy is being practised c/o The Royal College of Art, 23 Cromwell Road, London, S.W.7 (KNightsbridge 4144).

Messrs. Raglan Squire and Partners are continuing to retain the consultancy services of Mr. William Whitfield, A.M.T.P.I. [A], of the firm of Kadleigh and Whitfield.

Mr. C. S. Kimpton [F] has taken into partnership **Mr. E. J. Campling** and **Mr. R. Iliffe** and will continue to practise as C. S. Kimpton & Partners from the present address, Mount Lodge, Station Parade, Sunningdale, Berks (Ascot 300).

Messrs. R. Mountford Pigott and Partners [F/A], of 3 Cromwell Place, London, S.W.7, have taken into partnership **Mr. R. H. Haydon [A]**.

Mrs. Marian Russell [A], **Mr. Ian Hodgson [A]** and **Mr. R. H. Leigh [A]** have been taken into partnership by **Mr. R. D. Russell, R.D.I.**, under the title **R. D. Russell and Partners**. The office will continue to be at the Royal College of Art, Prince Consort Road, London, S.W.7 (KNightsbridge 2441 and 1661).

Mr. Michael Ryan [A] has been taken into partnership by Messrs. **J. Douglass Mathews and Partners**.

Mr. J. D. Shearer [A] has been taken into partnership by Messrs. **Hadfield, Cawkwell and Davidson** of 1 High Court, Sheffield, 1, and 50 Pall Mall, London, S.W.1.

Mr. Eric Hayward Skipper [F] has retired from the firm of Messrs. Skipper & Partners, but

he will continue to practise as a Diocesan Surveyor for the Diocese of Norwich. **Mr. Edward J. G. Skipper [A]** and **Mr. Richard B. Corless [A]** will continue to carry on the Norwich and Lowestoft practices at 66 Prince of Wales Road, Norwich, and 12 Gordon Road, Lowestoft, under the style of **Skipper and Corless**.

Mr. W. B. Stedman [F], **Mr. I. G. Smith [F]** and **Mr. F. C. Webster [F]** have taken **Mr. H. W. Turk [L]** into partnership. The firm will continue to practise under the present style of **J. M. Sheppard & Partners**.

Mr. Dara R. Variava [A] and **Mrs. Doreen W. Variava [A]** have begun private practice under the style of **D. R. and D. W. Variava** at 194 Smalley Hill, Heanor, Derbyshire, where they will be pleased to receive trade catalogues, etc.

Mr. J. Guy Warwick [F] has retired from practice and the firm of **Warwick and Ellis** is being carried on by his partner **Mr. Keith Ellis [A]** at the same address; 43a Priestgate, Peterborough (Peterborough 2334).

Mr. John A. Willman [A] has been taken into partnership by Messrs. **Harry W. Weedon and Partners** of 45-47 Calthorpe Road, Edgbaston, Birmingham, 15.

CHANGES OF ADDRESS

Mr. H. Alderton [A] has changed his address to P.W.D., Kuching, Sarawak, South-East Asia.

Mr. Leonard C. Allen [L] has disposed of his branch office at 58 High Street, Coalville, Leicestershire, to **Mr. C. Joseph Allsopp [A]**, who will now practise at this address. Mr. Allen will continue to practise from his office at White House, Wanlip, Leicestershire.

Mr. H. G. Baker [A] has changed his address to The Red House, 15A Load Street, Bewdley, Worcs. (Bewdley 2319).

Mr. P. W. Boucher [A] has changed his address to 21 Sunnybank Road, Bridgwater, Somerset.

Mr. Derek Buckler [F] has changed his home address to 3 Old Road West, Gravesend (Gravesend 6466).

Mr. James A. Crabtree [A] has changed his address to 29 Lonsdale Road, Barnes, S.W.13 (Riverside 2111).

Mr. S. A. Farmer [F] has moved to 5 Greenfields Road, Horley, Surrey.

Mr. Peter Philip Gibbons, A.M.T.P.I. [A], has changed his address to c/o James W. Ferrie, Esq., 4th Floor, Commercial Union Building, 11 Robinson Road, Singapore.

The **Housing Architect's Department** of the City and County of Belfast is now at Townsend House, 97 Townsend Street, Belfast (Belfast 22664-5).

Mr. J. Stuart Johnson [A] has opened a branch office at 8 Bank Street, Lincoln, and will be pleased to receive trade catalogues, etc.

Messrs. Lynde and Griffin [LL] have moved their office to 138 Tachbrook Street, London, S.W.1 (TATe Gallery 5234).

Mr. B. P. G. McElroy [A] has moved his office to 12 Queen Anne Street, London, W.1, where he will be pleased to receive technical and trade literature.

Mr. Joseph Mendleson [A] has changed his address to 71 Wimpole Street, London, W.1 (HUNter 0361) and the name of the firm is now **Joseph Mendleson and Partners**.

Mr. John Nicol [A], Deputy City Education Architect, Belfast, is now living at 6 Wilshire Drive, Belmont, Belfast.

Mr. Eric J. Redstone [A] has changed his address to c/o Stenson & Hope, P.O. Box 270, Salisbury, Southern Rhodesia.

Mr. Roderick G. Robbie [A] has changed his address to 202A Holland Avenue, Ottawa, Ontario, Canada.

Mr. Walter Rosser [F] has moved his office to 38 Kingsley Road, Northampton. The telephone number remains Northampton 4906.

Mr. Harold Simpson [A] has changed his address to c/o Messrs. Onions & Bouchard, 53 Front Street, Hamilton, Bermuda.

Mr. Douglas H. Smith [A] has changed his address to 29 Stonegate Court, London Road, Leicester (Leicester 76336).

Correction: In our March issue we gave the change of address of **Mr. Peter Stephens [A]** to 15 Underdown Road, Elizabeth South, South Australia. We regret that his surname was misspelt Stevens and apologise for any confusion that may have occurred with regard to **Mr. Peter H. M. Stevens [A]**, whose address is still Colonial Liaison Section, Building Research Station, Garston, near Watford. Mr. Stephens' new appointment and business address is given in the Appointments section above.

Mr. G. D. Tench [A] has changed his address to 1425 Paisley Street, North Vancouver, British Columbia, Canada.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Associate (32), with own small practice, is ending present partnership in London and wishes to meet architect of similar age and tastes, with a view to combined practice. Modern outlook essential. Box 27, c/o Secretary, R.I.B.A.

Fellow (38), with very successful private practice in Jersey, Channel Islands, wishes to concentrate on writing and painting and to dispose of practice to suitable qualified applicant. Financial arrangement could be made out of income; living accommodation also possible. Box 28, c/o Secretary, R.I.B.A.

Architects with growing practice in Surrey are anxious to contact young, energetic and experienced architect with a view to partnership. Box 30, c/o Secretary, R.I.B.A.

Architects with long-established country practice and interested in expanding and extending its activities, wish to acquire an additional practice with office accommodation offering scope for extensive development. Hampshire, Dorset, Wiltshire or north Somerset areas preferred but other districts considered. Please send fullest particulars. Box 31, c/o Secretary, R.I.B.A.

Architect with old-established general practice in Manchester seeks amalgamation with another with a view to enlarging the scope of the work, or would consider partnership with member with good connection. All replies treated with the strictest confidence. Box 32, c/o Secretary, R.I.B.A.

Associate (35) seeks partnership in practice where principal seeks gradual retirement. Some capital available for initial capital outlay. Repayment by agreed percentage of fees earned over stipulated period. Box 33, c/o Secretary, R.I.B.A.

Associate (37), at present partner without prospects or security, seeks an appointment leading to a partnership where hard work and capability are valued. Varied experience, many connections, good administrator. Some capital

available. Go anywhere within reason. Box 34, c/o Secretary, R.I.B.A.

North Hampshire. Associate retiring will sell small practice (no opposition). Goodwill and equipment £500. Ground floor offices on lease £3 a week plus rates. Box 36, c/o Secretary, R.I.B.A.

Scotland. Central Highlands. For sale, good architectural practice with three-roomed office, eight-roomed villa, gardener's cottage and garage. Box 37, c/o Secretary, R.I.B.A.

Partnership wanted from Middle East to home consumption. Associate seeks fresh fields. Limited capital. Unlimited ideas. Car. Is partnership in southern counties or Wessex a mirage? Box 38, c/o Secretary, R.I.B.A.

WANTED AND FOR SALE

Wanted. Dumpy level, tripod and staff. Box 26, c/o Secretary, R.I.B.A.

Fellow requires double elephant drawing board and T-square for a young articled pupil whose funds are limited. Box 35, c/o Secretary, R.I.B.A.

For sale. Planimeter in good condition. Seven guineas or near offer. Box 39, c/o Secretary, R.I.B.A.

Wanted. The Library of the Graduate School of Design, Harvard University, is anxious to acquire the **ARCHITECTURAL REVIEW**, November 1941, December 1941, January 1942, and the **ARCHITECTS' JOURNAL**, 18 August 1955. Will members who are prepared to part with any of these magazines please write to the Librarian, R.I.B.A.

ACCOMMODATION

To let, in Victoria Street, London, S.W.1, one office of 200 sq. ft. Good natural lighting. Available immediately. Box 29, c/o Secretary, R.I.B.A.

The Royal Institute of British Architects, as a body, is not responsible for statements made or opinions expressed in the JOURNAL.



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"This underground gymnasium is unique," said the instructor. "Here's where we make ourselves tough and strong."

"Those are words I always associate with salt glazed vitrified clay," said Baron Rabbit, "you know, the stuff those pipes are made of."

"Vitrified clay pipes are certainly tough. And they're smooth and acid-resisting."

"They are the longest lasting sewer pipes," said the Baron. "They stay down for ages, save the surface people a ton of money."

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"Salt glazed vitrified clay pipes are extraordinary!" agreed the Baron.

Put down Salt Glazed Vitrified Clay Pipes and Conduits — they stay down for centuries!

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*"The first building
in the West End of London
to employ
a standard curtain
wall consistently
over all its street
facades . . ." used
'Wallspan'*

In designing Electrin House, the architects chose Williams & Williams 'Wallspan' to clad its three exposed sides from the first storey up.

Careful detailing against the weather and its light, graceful appearance made 'Wallspan' the ideal choice for this contract—to say nothing of such down-to-earth advantages as ease of handling and speedy completion of the external walls. For a further reason—we quote the architects: "It is illogical to cart Portland stone five storeys up into the air."

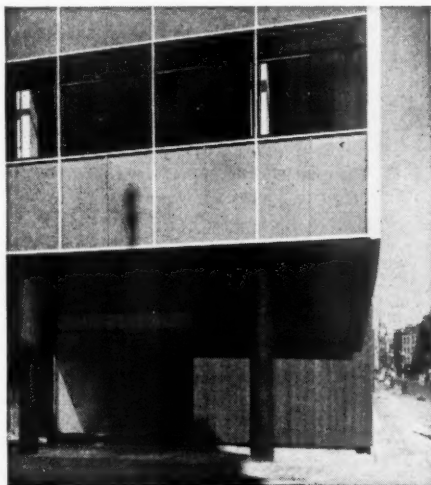
Infilling is of blue-green Plyglass, backed up by a reinforced concrete stub wall to meet L.C.C. fire regulations. A reinforced concrete parapet behind the 'Wallspan' at roof level is capped by a purpose-made aluminium coping. The non-standard corner detail is weathered by an angled aluminium pressing provided with a special cap.



*Electrin House, New Cavendish Street, London, W.1
Architects: Gollins, Melvin, Ward and Partners.
Contractors: Griggs and Son Limited.*



Inside the building, load-bearing stanchions are kept clear of the 'Wallspan' to allow continuous fenestration to run behind them. This open floor plan gives complete freedom for partitioning arrangement and rearrangement, but provision has been made to attach the partitioning to the structural columns when this is preferable.



Set into the aluminium grid are Williams and Williams purpose-made, vertically pivoted steel windows, carefully arranged to allow the cleaning of the whole external wall to be done from the interior of the building.

WILLIAMS & WILLIAMS

RELIANCE WORKS • CHESTER



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Standard Metal Windows for the highest flats in London's largest Borough

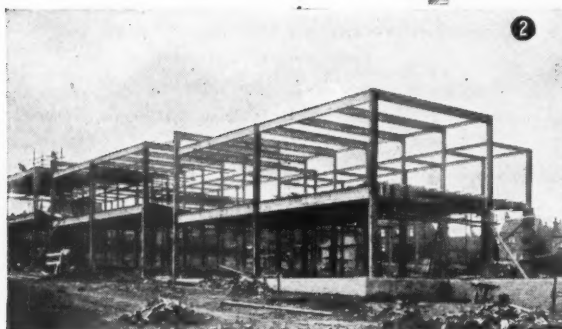
This block, part of Wandsworth's extensive housing schemes, contains 167 flats in three 8/9 storey blocks. At the moment, it is one of the highest blocks of flats in Wandsworth (although higher ones are under construction) and amongst the highest in suburban London.

Standard metal windows? By Williams & Williams, of course.

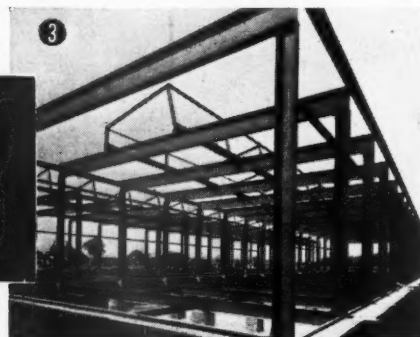
*Flats for Wandsworth Borough Council
Wimbledon Park Estate*



Design Fabrication Erection



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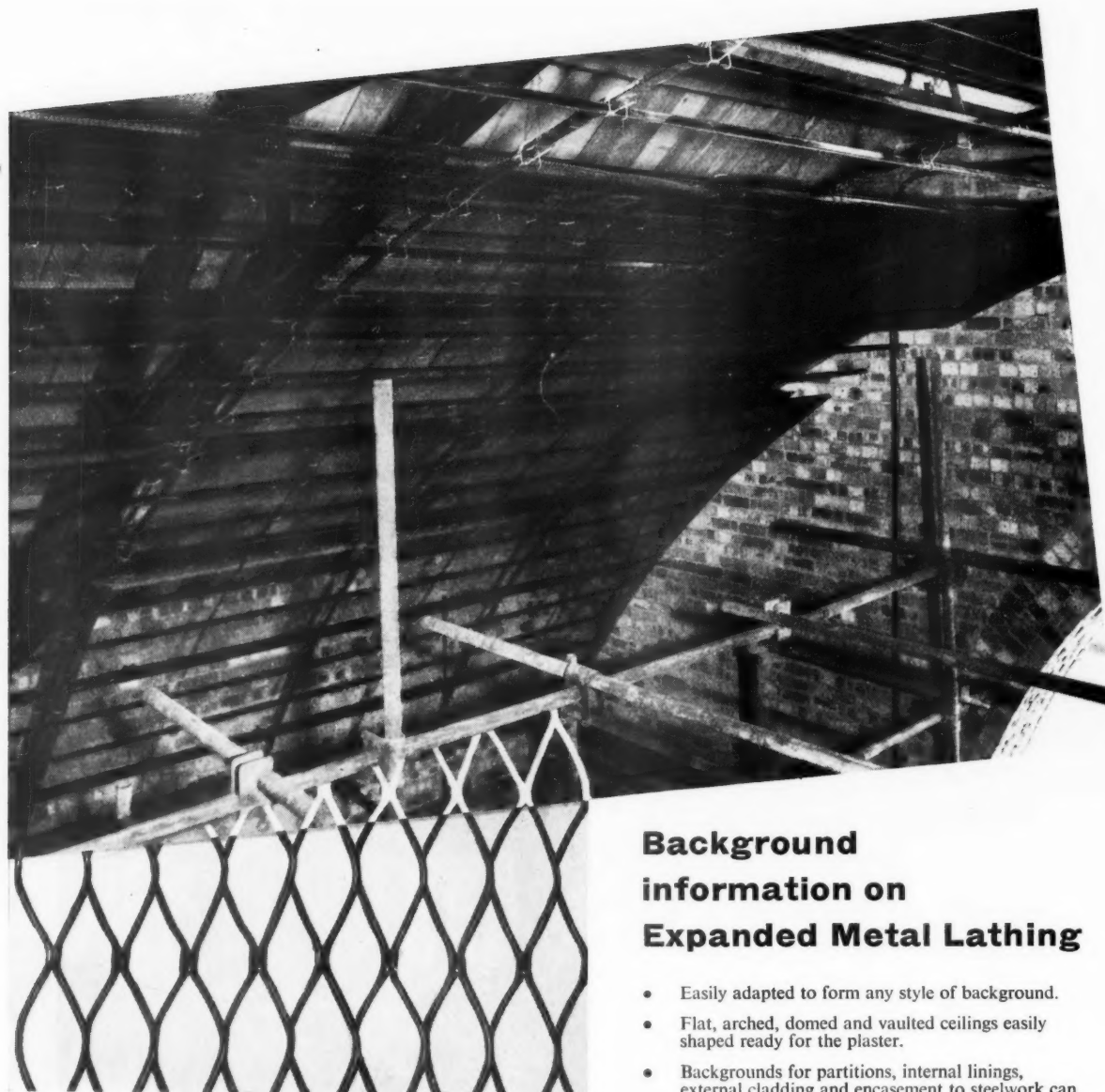
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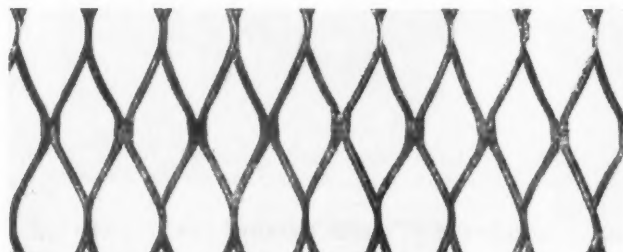
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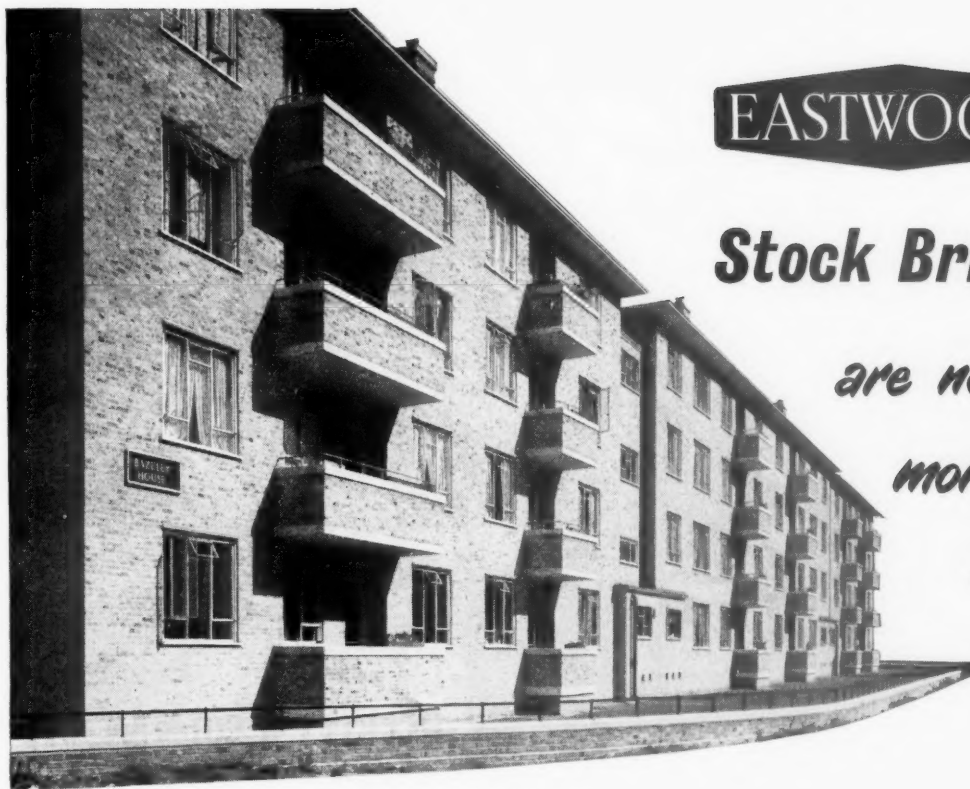
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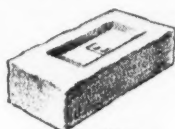


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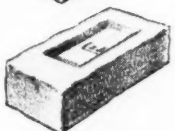
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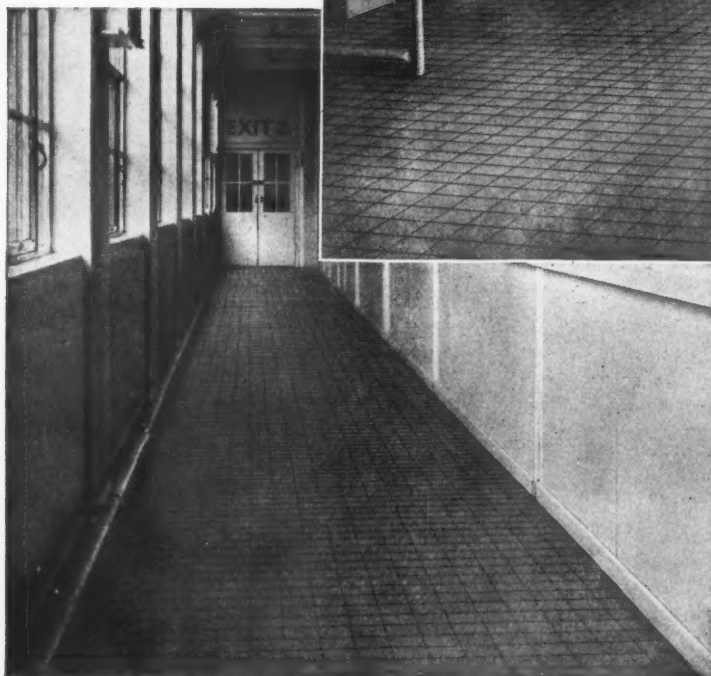
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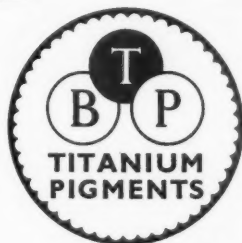
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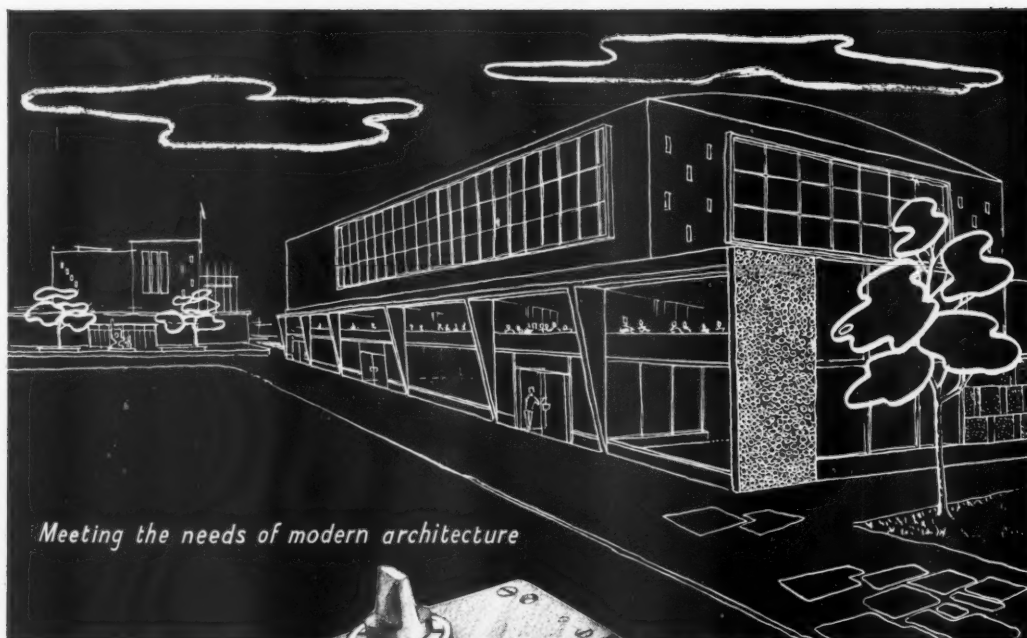


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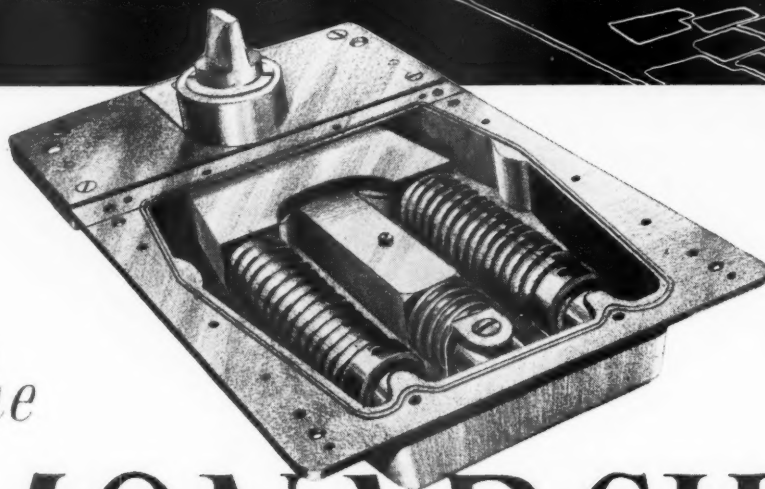
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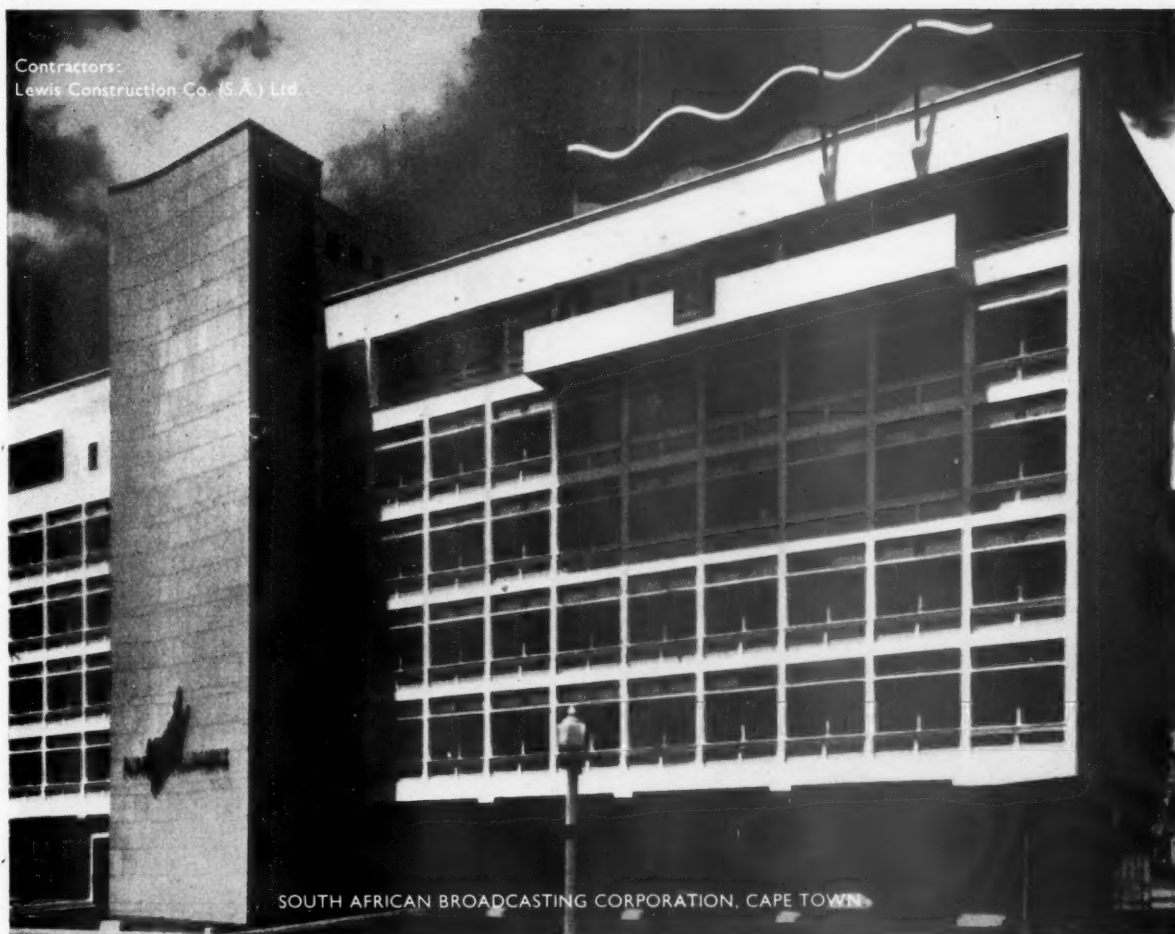
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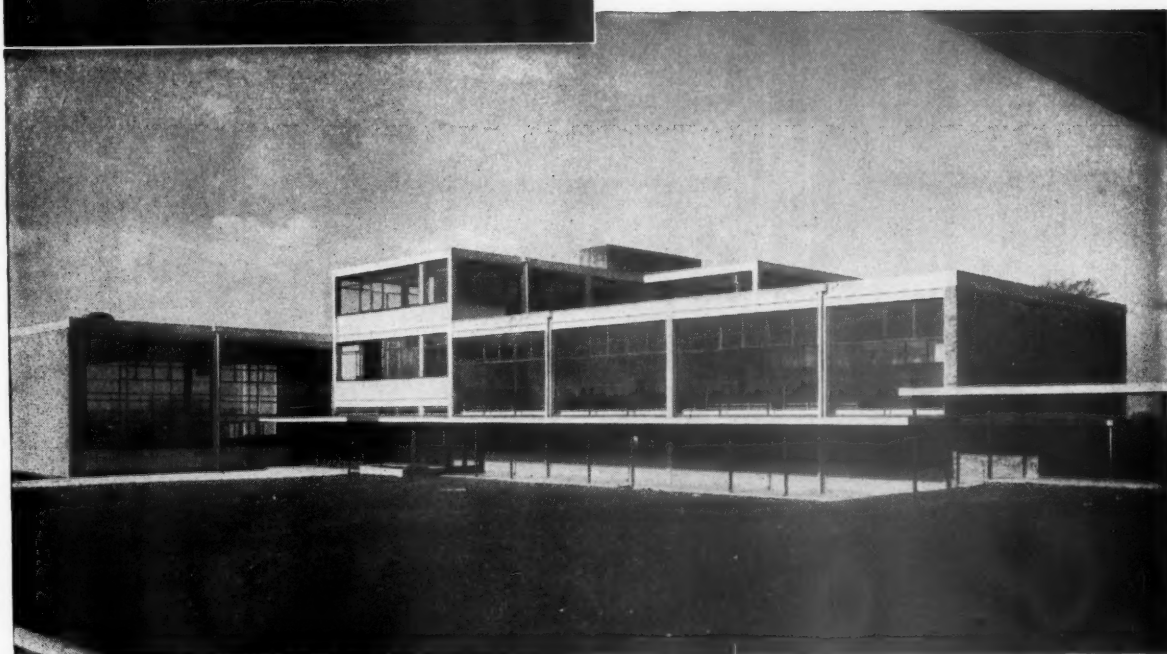
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Utile is a close relation of the more familiar Sapele. If you're a Lifeman, you may like to know that its botanical name is *Entandrophragma utile*; if you want to be up-to-date on your finishes you really need to know about this and the other West African hardwoods.

vital facts on Utile

Colour: Varies from a lightish to a dark brown.
 Strength: Equivalent to Mahogany but harder.
 Weight: About 40 lb./cu. ft.
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 Texture: Fairly close.
 Workability: Good. Takes a high polish.
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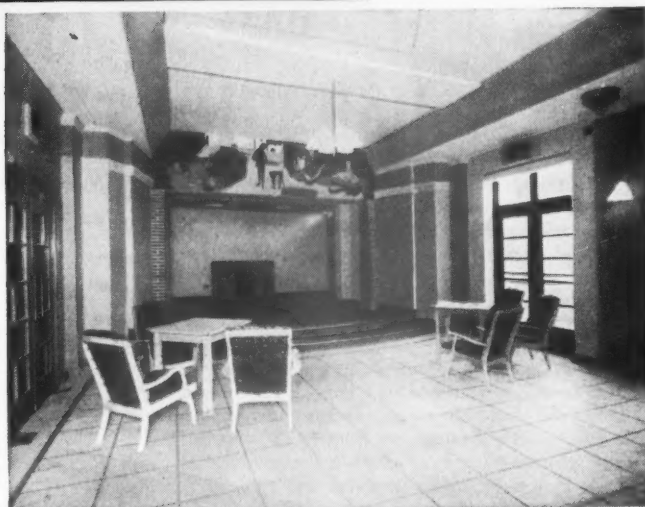


*Nurses' Home, Nobles Hospital,
Douglas, I.O.M.*

*Architect: W. T. Quayle, Esq.,
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A Plenum system delivers warm air to this and other larger rooms, which also have separate extract systems. Ceiling radiator panels take care of the normal structural heat losses, the ventilation systems being brought in as and when required. Low-pressure hot water radiators heat the bedrooms.

The heating and ventilating systems in this Nurses' Home were designed and installed by Brightside.



The Entertainment Room at the Nurses' Home, Nobles Hospital.

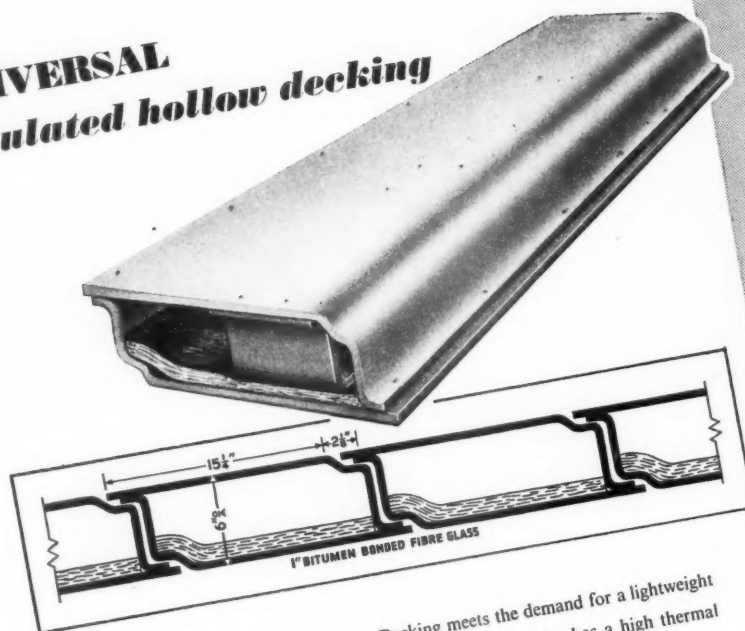
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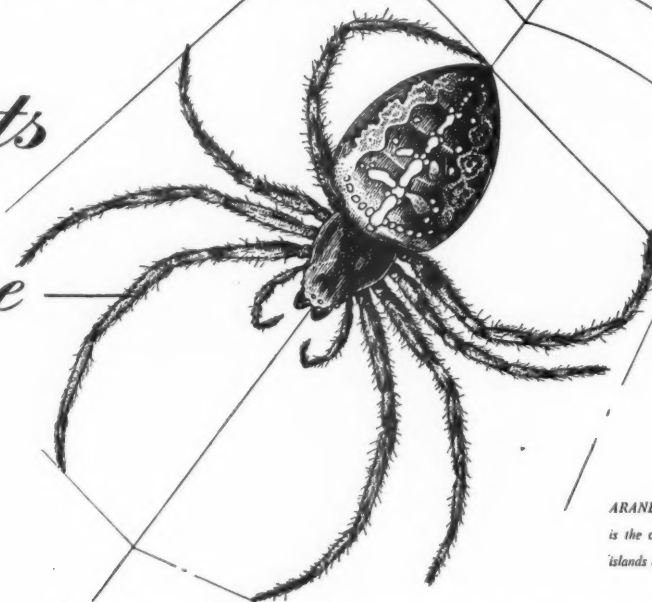


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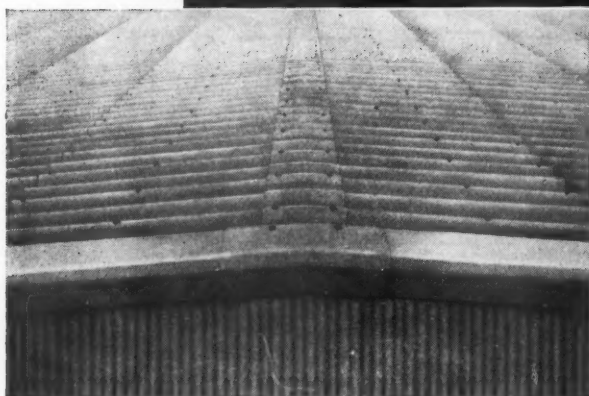
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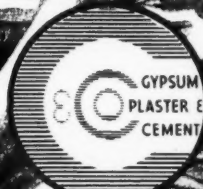
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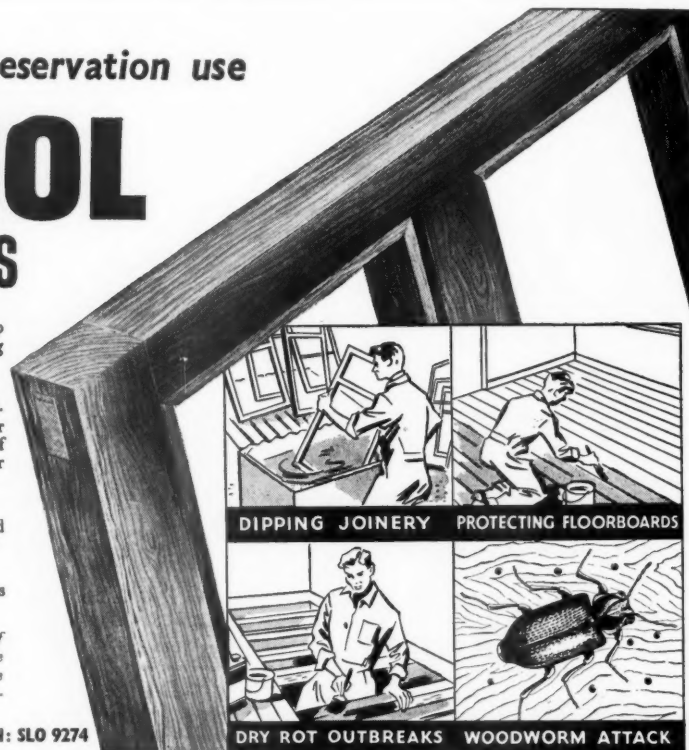
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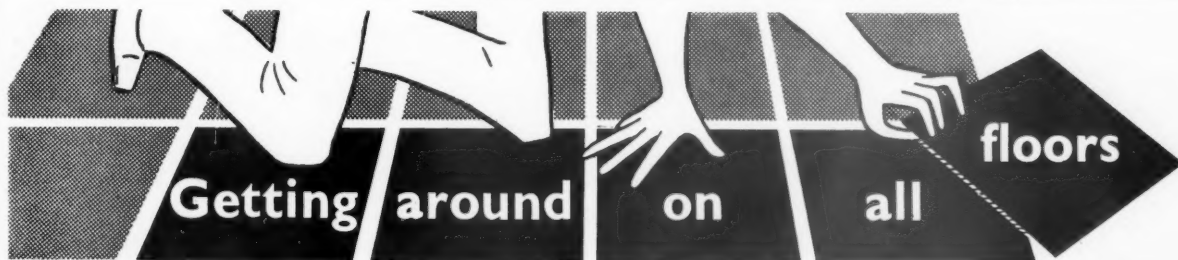
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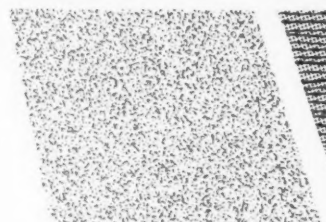
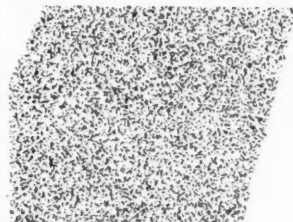
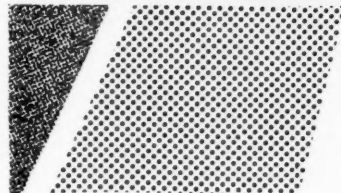
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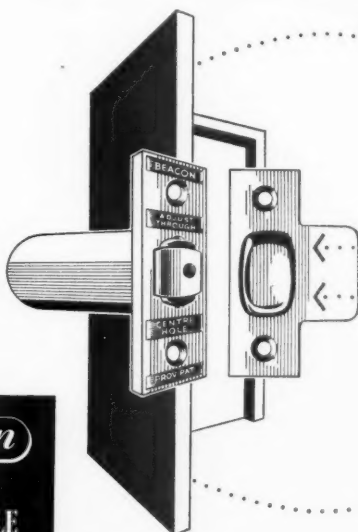
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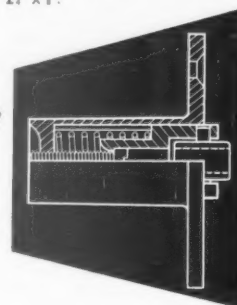
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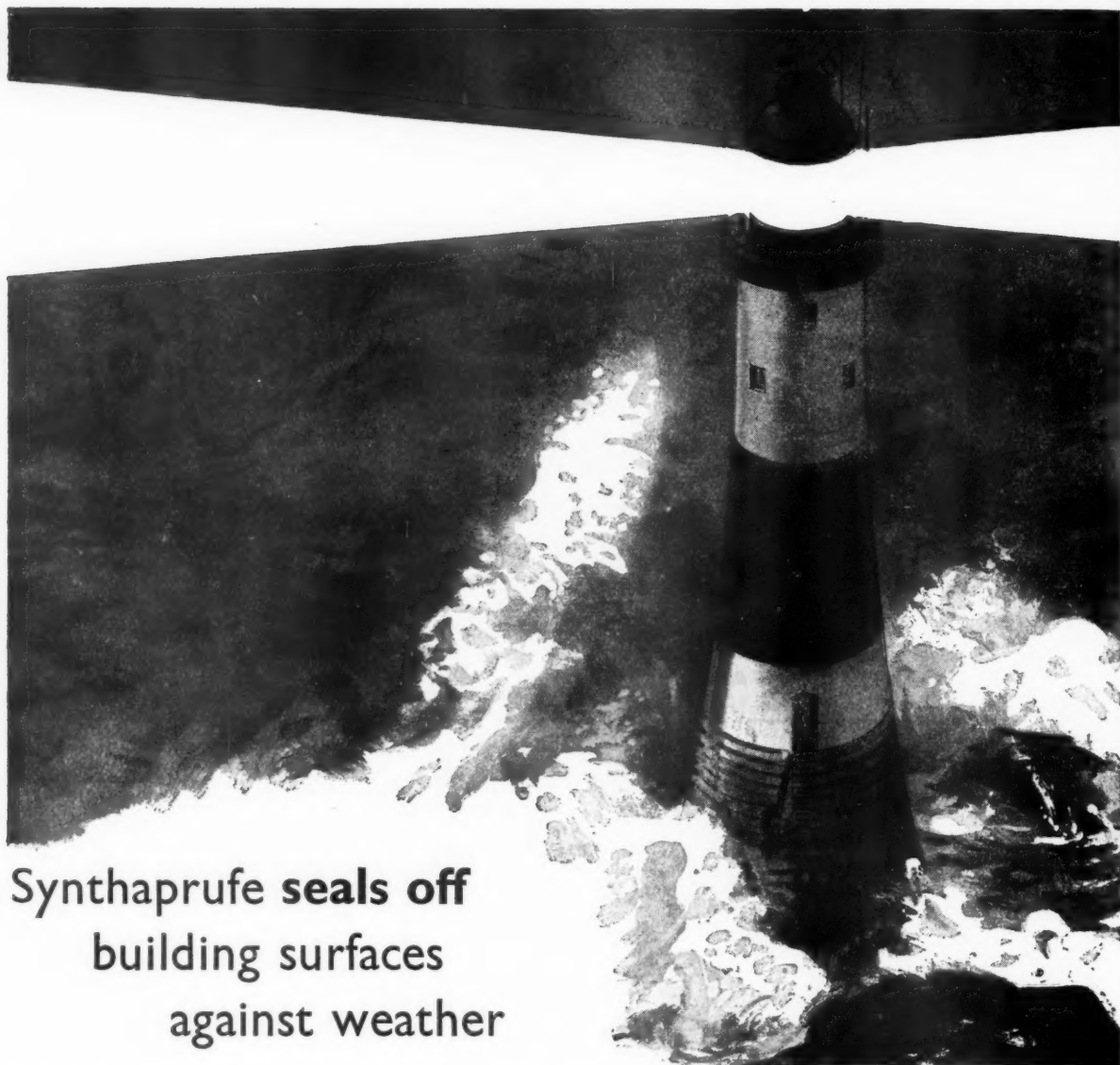
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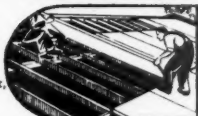
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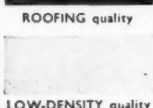
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Building Research Station Digest

No. 98

MAY, 1957

Light Cladding—Part I General Principles of Design

This and the next Digest deal with the light claddings that have been intensively developed during the last few years as walls for buildings. These claddings can be used to form continuous envelopes or 'curtain walls' suspended from the load-bearing structure or as panel infillings in the spaces between the external members of a structural frame. Each form has the characteristic purposes of saving weight, space and building time, of extending the range of architectural expression and of exploiting new sheet and panel materials available for dry construction.

Some kinds of curtain walls such as factory cladding and patent glazing were in use long before they were distinguished by that name, and between them they provide the background to their more recent counterparts. But many other types of cladding lack recognizable ties with established building practice and, as some of the aspects of their behaviour are as unfamiliar as the materials and constructions used, there is at present no sound basis of experience on which to judge their performance accurately. In this Digest the main functional problems involved are examined in the light of existing knowledge. In the next Digest the behaviour of the more commonly used materials will be discussed. The two Digests must be regarded as interim contributions, subject to modification as experience is gained. They relate primarily to conditions in Great Britain and Northern Ireland. Additional information and experience from practice will be welcomed at this Station.

Much of the following comment and many of the numerical values relating to building materials assume extremes in exposure. It is of course expected that the reader will interpret these according to less severe exposures or to

climates other than that of the British Isles, for which the notes are principally intended. Broadly, the problems of stability, weather exclusion and dimensional change increase in complexity and importance with the height of buildings but, here again, the relative weight to be attached to each functional requirement must be judged according to specific building designs.

Strength and stability

In contrast to a load-bearing wall, a light cladding supports only its own weight and does not require high compressive strength but it must still be designed to resist wind loads. The possible variations in size, shape and composition of the components of any wall cladding are controlled by the need for self support and by wind loads that become more severe as height above the ground increases and as the degree of exposure increases.

The subject of wind loading is dealt with in B.S. 449, "The Use of Structural Steel in Building" and in a slightly different way in the B.S. Code of Practice CP 3, Chapter V,

TABLE 1

Effective height of building (ft)	Basic wind pressure p (lb/sq.ft.)			
	Exposure A (V=45 mph)	Exposure B (V=54 mph)	Exposure C (V=65 mph)	Exposure D (V=72 mph)
Up to 10	4	6	8	10
40	6	9	12	16
80	9	12	17	22
120	10	14	19	25
160	11	16	22	28
200 or more	12	17	24	31

"Loading" for buildings in general. The arguments so far as they affect cladding are summarized below and the basic wind pressures shown in Table 1 are quoted from the Code of Practice.

Local authorities decide upon the exposure rating A, B, C or D of their own areas. In Britain the northern uplands and the coastal areas are the most exposed and thus present the most exacting conditions for standardized building systems developed for country-wide application. Conditions in other parts of the world will sometimes be even more severe. The wind pressures shown in Table 1 are the basis on which wind loads are calculated in general for a structural frame and for exposed walls. In applying the values in Table 1 to the walls of a building, the windward and leeward faces of the building (perpendicular to the direction of the wind) are assumed to share the tabulated wind pressure (p) in the proportions of about $+\frac{1}{2}p$ externally on the windward face and $-\frac{1}{2}p$ externally on the leeward face. To take account of internal pressure or suction produced when wind has access to the interior of the building through permeable walls or through openable windows on one or more facades, the Standard and the Code recommend that internal pressure and suction should be considered in proportion to the window area. In office buildings, flats, etc., with windows of customary size and spacing the walls should be designed to resist outward or inward pressures of $0.7p$ and, when as in some single-storey factories, very large openings occur in the walls the outward or inward pressure may be up to $1.0p$. (These recommendations are excepted in the case of a squat building with a roof pitched at less than 30° and a width greater than twice its height. Here, the assumed pressure, inwards or outwards, should be taken as $0.8p$ regardless of windows.)

Panel cladding and sheeting may be subjected locally to higher wind pressures. It is recommended in the Standard, and implicit in the Code, that beyond the foregoing values an allowance of $0.1p$ should be made to include this factor. The modified assumed wind pressure is thus $0.8p$ for buildings with normal openings, with values up to $1.1p$ for very large openings.

Panel components should be stiff enough to restrict flexure within limits that avoid the risk of cracking internal finishes or repeatedly disturbing mastic materials used for jointing.

Thin metal facings should be secured or shaped so as to reduce vibration in a gusty wind and accommodate the sudden deformations due to thermal movement which are described later. Other incidental forces produced by changes in temperature should be taken into account in detailing frames and couplings for cladding panels and the connections between these and the building structure. Fixings for panel or sheet components should be designed to carry wind pressures and suctions given above on the area of cladding which they each support except that a suction of $1.5p$ should be assumed for each such area within a distance from each end of 15 per cent of the length of a building face. They should be strong enough to withstand possible over-load due to the failure of an adjacent fixing and thus to prevent collapse of the cladding as a result of progressive failure of a number of fixings. In designing fixings a relatively high safety margin is therefore desirable.

Weather resistance

(a) Rain. Much of the rain falling on a porous wall material such as brickwork or stone is absorbed, held in pores and later evaporates into the surrounding air. On the other hand all the rain falling on an impervious vertical surface will run down the wall in a heavy rain-storm at the rate of something like one gallon a minute for each hundred square feet of wall exposed to rain. This flow will of course accumulate as it approaches the ground and could cause embarrassment at the base of a high building. There have not yet been any indications from practice that intermediate catchments between the roof and the ground are desirable but a reasonable minimum provision is to direct water run-off away from doorways and paths.

The more serious effects of this volume of run-off are exceptional risks of water penetration at open or gasketed joints and of erosion by scouring where joints are filled with mastic compounds. Both are known to be occurring in existing buildings.

(b) Wind. The risk of water penetration at joints is increased by strong winds. It has already been found that in claddings in very exposed situations the customary forms of drips, weepholes and ventilating channels can freely admit water which may be driven up the wall face as well as down.

In a survey recently conducted in America, one fifth of 160 owners of buildings with metal curtain walls reported noticeable air penetration at the junction of the window frame and surrounding cladding; a quarter reported dust infiltration also. Such air movement, outward or inward according to the wind direction, will increase the heat loss from a building and therefore impose an added load on the heating plant. Another disconcerting effect of strong winds is the sudden, strident 'aeolean harp' effect produced by air forcing its way through narrow apertures and across the unsupported edges of thin metal sheets. This can be prevented if intercommunicating cavities through the thickness of the wall are avoided.

Designing for resistance to rain penetration

In all systems subject to excessive water run-off there is much advantage in designs of joints that provide an air space drained to the outside immediately behind impervious facings. This provision is a feature of the so-called 'patent' glazing design, commonly used in Britain.

Glazing into metal frames is usually done in this country by puttying or by mastic-bedding and beading. The recent development of neoprene and butyl-based rubber extends the available fixing methods to the use of gaskets such as those used in the motor car industry, to strip bedding compressed round the edges of glass sheets by beading, and to hollow tube stripping used each side of the glass and similarly compressed.

Systems using panels bedded in rebated rectangular frames remain waterproof only as long as the bedding mastic remains adherent and in good condition. As the ideal requirements of permanence and stability for exposed mastics appear to be beyond practical achievement at present, sealed joints must be considered to have inherent weaknesses and to be less permanently valuable than adequate drainage behind the outer facing.

Various modifications of framed panel systems include panels fixed with compressible sealing strips and soft mastics to provide the final seal. Rubbery sealing strips may also be formed by compounding two-part ingredients to bond securely to the surfaces which they separate; this method, which is described in Part II, seems likely to have advantages over

gunned or other strip-sealing mastics but more experience is needed before this can be confirmed.

In very severe exposures, panel walls that rely on cavity drainage at their lower edges may need drainage channels or gutters with a step or a benching at least two inches high if the risk of penetration of wind-driven rain into the backing is to be avoided.

Dimensional stability

Thermal movements

Thermal movements can be particularly troublesome in curtain walling systems in which large panels are fitted into rebates in rectangular frames. The panels and frames are usually of dissimilar materials, and the differential movement complicates the problem of waterproofing, since it may be more than any putty or mastic bedding can continue to accommodate for long periods. The trouble is accentuated by the fact that lightweight panels and their supporting frames have relatively small heat capacities and in consequence their temperature will vary more rapidly and over a wider range than the more substantial parts of a building. The external panels, in particular, which may be assumed to be separated from the building by a layer of thermal insulation, may closely follow the changes of air temperature. Between night and day in clear summer weather in this country the variation can be up to 40°F while the total range, between a cold winter night and a hot summer day, may be as great as 90°F.

Panels exposed to sunshine may, unless very light in colour, experience an even greater range of temperature. On a black panel, insulated at the back, temperatures can, for example, rise as high as 160°F, even in Britain.

For composite panel construction exposed directly to the sun then, it may be necessary to assume an extreme seasonal range of temperature of 160°F as a basis for design in Britain. The dimensional changes in unrestrained components over this range are shown in convenient units in Table 2.

Where prefabricated composite panels are used, with the component layers firmly connected together, temperature gradients across the thickness of the panels and the use of dissimilar materials in juxtaposition may cause deformations which still further complicate the fixing problem. There is much to be said for keeping the exterior waterproof skin

TABLE 2: THERMAL MOVEMENT

(change in inches on a 10-ft length for 160°F temperature change)

Steel	0.12
Aluminium and Alloys	0.26
Glass	0.12
Asbestos cement	0.09
Wood: along grain	0.03—0.09
across grain	0.37—0.71
Plastics	0.08—0.40
Concrete	0.12

separate from the inner insulating layer. Ventilation of the air space may then be useful in sunny weather, as a means of keeping down the temperature of the exterior skin, and the existence of the cavity also simplifies the problem of water exclusion and condensation. Even when ventilated, the air space provides a useful increment of thermal insulation but the degree of ventilation possible will be limited by other considerations.

Clearly in regard to thermal movements between panels and frames, the advantage lies with those systems of curtain walling which do not depend on putty or mastic fixing and in which sufficient freedom of movement can be left at the edges of the panels to accommodate any thermal movements likely to be experienced.

There is, however, another aspect of the problem of thermal movements that can arise with all systems of curtain walling. Although the frame to which the cladding sheets are attached will not in general vary in temperature as widely as the sheets, it may vary much more than the structure that carries it. Apart from the effect of differences in heat capacity, the frame will be much more exposed to external influences than will the structure of the building. The latter, too, will probably be kept warm throughout the winter by the internal heating, and may even be stabilized in temperature throughout the year where air conditioning is in operation. If, therefore, the frame is continuous over a number of storeys the total movement relative to the structure may be considerable. Of the various materials commonly used for the frames, aluminium is likely to give most trouble in this respect,

because of the magnitude of its thermal movement. Obviously allowance for such movement must be made in fixing the frame to the structure: this is often done by slotting the holes for the attaching bolts, though more consideration should perhaps be given to means of reducing friction at the bolted connections. Failing some such provision the frame must be designed in units small enough for the relative movement not to be troublesome.

Moisture movement

With the exception of metal and glass, the materials used for light claddings all have recurrent movements in response to changes in moisture content. Movements in materials such as dense plastics are of little practical account compared with their thermal movement but products based on wood and on cement have relatively high moisture movements. The relative significance of moisture movement and thermal movements in different materials will be discussed in Part II.

Heat insulation

A high standard of heat insulation for external walls is desirable in this country principally to limit heat losses from buildings in winter and so to avoid high fuel consumption. Broadly, heat conservation in cool climates and the control of heat gain in warm ones are basic economic problems but in any habitable building the value of heat insulation must be considered also in terms of occupants' comfort. Both aspects of insulation are further related to the incidental effects of heat and moisture on the efficiency of insulated walls and the durability of their components and finishes.

Heat losses and gains

Many insulating materials and many kinds of composite wall panels are themselves highly efficient as heat insulators but the overall resistance to heat transfer through a wall of which they form part depends also on the method of framing employed. Some of the benefit of insulation afforded by panels themselves will be sacrificed if continuous framing members which conduct heat rapidly are exposed on the inside and outside surfaces of the wall. The heat loss from warmed buildings across such "bridges" will be more rapid if the external skin of the wall is of metal in contact with the frames. Local leakage of this kind can be reduced by framing with a material

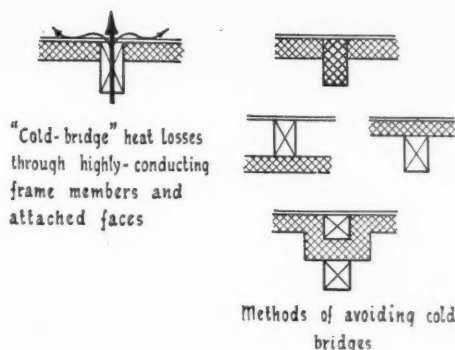


Fig. 1

that conducts heat slowly or, if the frames must be of metal, by breaking the conducting path across the wall in any of the ways sketched in Fig. 1.

These methods are now establishing themselves as essential techniques in some advanced construction here and abroad.

Heat gains from solar radiation at the beginning and towards the end of the winter can make welcome addition to comfort when large windows are used but summer gains, even in temperate climates, may be undesirable. It is not common practice in this country to use external shading by louvres or blinds though in some kinds of building advantage can be taken of shade from balconies. However, the problem of solar gain through openable windows is not generally so serious here that it cannot be dealt with by ventilation and help can be given by light-coloured blinds behind the glass of windows not meant to be opened. These will protect occupants from radiant heat and, if they are white, they can reflect a large proportion of solar heat back through the glass.

Incidental effects of solar heat

In the absence of shade from external projections, the insulated parts of a well-insulated wall may become excessively hot, to the detriment of paints and mastics. As already noted, ventilation behind the outer skin of cladding will be of assistance in this respect. The provision of a drained cavity behind the external skin is likely to have a more direct bearing on the condensation problem discussed below but it can help to relieve high internal temperatures especially in the types of cladding based on

patent glazing where there is fairly free ventilation through joints in the cladding.

Control of condensation

The risks of condensation within a panel wall of which the outside skin is either impervious or the least permeable component of the panel involve factors specific to individual forms of construction which cannot be dealt with here. In the light of present experience it appears that in normally heated buildings where internal humidity is not high in winter, condensation trouble is least likely if a drained cavity can be arranged behind the outer skin. Although it may not be possible to ventilate this cavity thoroughly, the outlets for water will assist the transfer of vapour from the cavity to the outside air. When a cavity cannot be used or where high internal humidity is expected, the alternative of introducing a vapour barrier at—or more usually behind—the internal wall face should be considered. There are obvious difficulties in maintaining the continuity of a vapour barrier over jointed backgrounds. As long as the internal barrier is the most effective seal in the wall construction and there is some freedom for vapour to escape at joints in the external face, the small quantity passing through joints in the inner lining should be able to diffuse outward harmlessly and drainage may be required only around highly conducting panel or structural frames.

If vapour barriers are not included condensation can readily occur on the inner surface of the outer skin of a drained cavity. The amount of condensation can be reduced if the outer skin consists of two impervious sheet materials separated by a properly sealed cavity. This method has the further advantage that the innermost surface will then be exposed to much less severe conditions than the inner surface of the single sheet, and it also provides a means of protecting paint coatings used for decorative purposes behind glass sheeting.

Persistent condensation will ultimately damage stove-enamelled or brush-painted coatings on glass or metal external panels or on any permeable insulation behind them. There is least risk of deterioration of this kind where the outer skin consists of two impervious sheet materials separated by a sealed air space in which the paint coating is exposed to virtually dry conditions. Absolute protection for such a coating depends on the permanence of the edge seal of the unit and experience to date

suggests that reasonable durability can be achieved.

Sound insulation

As lightness in weight and high resistance to airborne sound transmission are not compatible, the opportunity to control external noise by wall insulation diminishes as the weight of the wall is reduced and thus control by the siting of buildings or individual rooms becomes proportionally more significant. When buildings cannot be sited away from industrial or traffic noise, the requirements of good sound insulation tend to exclude forms of construction which in other respects may be desirable. For example, light panel wall systems which attempt dry fixing without air-tight joints may meet other functional requirements admirably yet provide very low resistance to external noise. Weight and continuity are indispensable if much above the tolerable minimum of 20-30 dB of sound reduction is to be sought.

The type and relative area of glazing are each important to the overall resistance to external noise. Very large areas of single glazing may transmit so readily that the benefit of insulation in the unglazed areas is offset. Progressive improvements in insulation can be expected by limiting the relative area of glazing, by using fixed lights in conjunction with air conditioning and by combining either or both of these expedients with double glazing. Double-glazed windows should have a cavity 4-8 inches wide between panes and with reveals lined with absorbent material. Table 3 gives the estimated values of sound reduction for various types of construction and proportions of glazing.

It is not yet possible to compare the effects of light cladding and masonry on structural noise transmission between adjacent rooms or storeys but it seems unlikely that there will be appreciable differences in behaviour. Airborne sound transmission is however a considerable factor, especially in curtain wall construction, if the method of attaching the cladding to the structure does not provide air-tight seals between adjacent rooms or storeys. Air gaps between the edges of cross partitions and cladding, even if they are no more than a few hundredths of an inch wide, can reduce the effectiveness of the partition insulation, the reduction being proportionally more severe as the nominal insulation of the partition increases.

- a. Single "sandwich" panel: weight 5-10 lb/sq.ft giving 30-35 dB reduction.

TABLE 3: VARIATION OF SOUND REDUCTION WITH AREAS AND TYPES OF CONSTRUCTION

Type of Glazing	Construction of wall spand-rel	Decibels (dB) reduction of walls with windows				
		Per cent glazing				
		100	75	50	25	0
Single with opening lights	a	15	16	18	20-21	30-35
	b	15	16	18	21	40
	c	15	16	18	21	45
	d	15	16	18	21	50
Single with fixed lights	a	22	23	25	27	30-35
	b	22	23	25	27	40
	c	22	23	25	27	45
	d	22	23	25	28	50
Double with 4-8 in. cavity	a	44	40	38	36	35
	b	44	43	43	41	40
	c	44	44	44	44	45
	d	44	45	46	48	50

- b. Panels with cavity between faces: weight 10-15 lb/sq.ft giving 40 dB reduction.
c. Panels cavity/back-up wall: weight 30-50 lb/sq.ft giving 45 dB reduction.
d. 9-in. brickwork or equivalent: weight 120 lb/sq.ft giving 50 dB reduction.

Resistance to fire

With the exception of schools, buildings in Britain must be designed so that the external walls can resist fire for periods specified in English, Scottish or London Byelaws. For dwellings, the duration varies according to the height and size of the building and to its position in relation to other buildings. For other types of building, more than one storey in height, the normal requirement for curtain walls is a fire resistance of two hours; for panel walls supported between structural building members, one hour.

A curtain wall in which panels are fixed in a metal frame is unlikely to meet the appropriate requirements by itself, for the metal parts are liable to fail before the specified time has elapsed, even though the panel infilling may have adequate fire resistance. The usual solution in this case is to install a non-com-

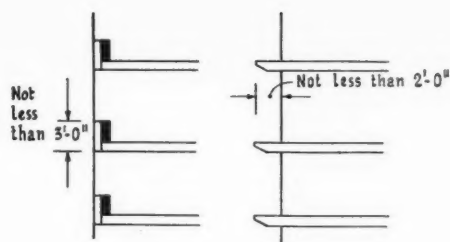


Fig. 2

bustible "back-up" wall, independently supported from the cladding and high enough to combine with a structural floor to provide the separation that will reduce the risk of fire from spreading to the storey above (see Fig. 2 and Model Byelaws 47(2)(a)).

An alternative is to project the floors to form fins or ledges or balconies with a similar object;

this may be convenient especially in the design of flats. Back-up walls or special projections add to cost but, with metal-framed curtain walls at least, they must be accepted unless the frame and the cladding meet the requirements for fire resistance or until such time as statutory requirements of fire resistance are relaxed. Other countries may have different standards but the British requirements are not unusual.

Many combinations of materials for panel infillings will be found to meet the requirement of one hour fire resistance. Some of the proprietary forms of composite panel already have reports of test for their fire resistance.

Cavity construction

Mention has been made in some of the preceding sections about the advantages and disadvantages of incorporating cavities in light forms of wall construction. In any design the relative merits of cavities must be balanced. For convenience therefore, they are summarized below.

Requirement	Advantage or disadvantage of cavity
Resistance to wind penetration	Fundamentally no disadvantage but detailed treatment must ensure that, where there are two or more cavities within the thickness of the wall, they shall be isolated from each other.
Resistance to rain penetration	Clear advantage in drained cavity behind the external skin. Precaution against upward-driven rain should be taken.
Insulation against heat loss	Generally advantageous. Incidental ventilation has no serious effect.
Control of solar heat gain	Some advantage afforded by incidental ventilation in drained cavity.
Control of condensation	Drained cavity advantageous in removing condensate. Incidental ventilation again valuable. Double skin construction with properly sealed cavity effective.
Insulation against noise	Wide cavities with absorbent reveals advantageous.

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